WINTER 2023 | ISSUE 301

BALANCE

DIABETES UK
KNOW DIABETES. FIGHT DIABETES.

The exclusive magazine for Diabetes UK members

TRUST THE PROCESS?

Our experts examine the impact ultra-processed foods have on your health

'ON THE BRINK OF A NEW ERA'

The latest developments bringing us closer to a type 1 cure

IT'S COLD OUTSIDE

How to maintain an inner glow

In the pink

Ateh talks type 2 diabetes, discrimination and daring to be yourself

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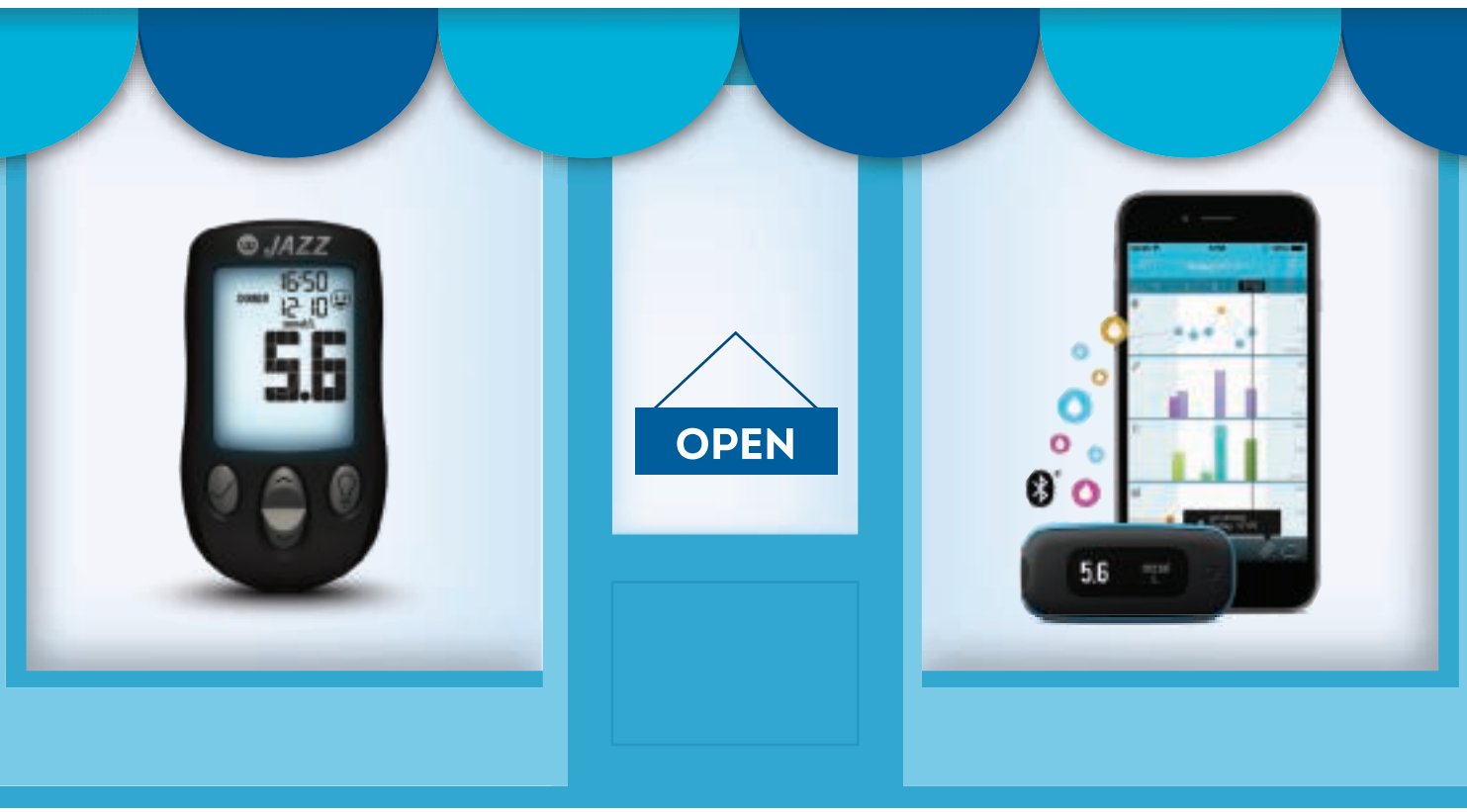

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Welcome to your Winter issue of Balance

At Diabetes UK, one of our key aims is to support pioneering research into all forms of diabetes and its complications. This wouldn't be possible without the support of your membership, which helps us fund game-changing projects each year.

In this issue, we're celebrating all we've achieved so far, from the invention of the insulin pen to making remission a reality for many. And we're bringing you the latest diabetes research from around the world, including findings that have the potential to change the diagnosis of type 2 for women and the discovery of 'core' genes that affect type 1 risk.

The impact of our research on improving people's lives can never be underestimated – read about the scientists behind developments like islet transplants and type 2 remission and meet the people living happier, healthier lives as a result.

Plus, our experts have looked behind the headlines to examine 'ultra-processed foods' and the impact they can have on our health. We have delicious, exclusive recipes to help you get your 5-a-day and tips on keeping healthy and full of cheer during the cold winter months.

Senior Membership Manager, Diabetes UK

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

BONUS CONTENT

Winter can be a difficult time for many, so we've included some wellbeing and recipe cards with this magazine. You can tear these off and put them on your fridge or a mirror, or you can keep them together as a pack. Let us know if you've tried the recipes or any of the wellbeing techniques!

YOUR FREQUENTLY ASKED QUESTIONS

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

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

Q: Why has my welcome pack still not arrived?

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

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

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

FIND SUPPORT

Diabetes UK Helpline

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

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

Talk to people with diabetes

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

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

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

Campaign

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

Contact the Balance team

balance@diabetes.org.uk

Our Address

Diabetes UK
126 Back Church Lane, London E1 1FH

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Insulet_UK **OmnipodUK** **omnipoduk**

Pod and Dexcom G6 are shown without necessary adhesive. Screen image is an example, for illustrative purposes only. *The Pod has an IP28 rating for up to 7.6 metres for 60 minutes. The Omnipod® 5 Controller is not waterproof. The Dexcom G6 sensor and transmitter are water-resistant and may be submerged under 2.4 metres of water for up to 24 hours without failure when properly installed. Dexcom G6 is sold separately and must be used with the Dexcom G6 mobile app. The Dexcom G6 receiver is not compatible. **Fingerpricks required for diabetes treatment decisions if symptoms or expectations do not match readings. [‡]The sample Pod is a needle-free Pod that does not deliver insulin. Controller is not included. [§]Bolus for meals and corrections are still needed [1]Brown et al Diabetes Care (2021) Study in 241 participants with type 1 diabetes aged 6 to 70 years involving 2 weeks standard therpy followed by 3 months Omnipod® 5 use with SmartAdjust™ technology Insulet Netherlands BV Stadsplateau 7, 3521 AZ Utrecht, The Netherlands. INS-OHS-04-2023-00013 V1.0

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THE BULLETIN

The latest diabetes news, research and developments

Launching our manifesto

WITH A GENERAL ELECTION expected next year, in the autumn, we attended the Conservative, Liberal Democrat and Labour Party conferences to launch our Diabetes UK Manifesto for longer, healthier lives. It calls on all political parties to transform the state of diabetes care and prevention.

At the Conservative and Labour conferences, we hosted a stand where we spoke to ministers, shadow ministers, Members of Parliament and local councillors about the steps needed to improve diabetes care and ensure more people spend their lives in good health. It was also fantastic to chat with so many people living with diabetes and hear about their experiences.

Up to the General Election and beyond, we are going to campaign with the government and political parties across the UK to make diabetes care and prevention a priority.

You can find out more here: diabetes.org.uk/bal-manifesto

Type 1 screening in Northern Ireland

Children in Northern Ireland are now eligible for a trial screening programme that will identify those at high risk of developing type 1

ELSA is recruiting 20,000 children aged 3–13 years to assess their risk of developing type 1 diabetes through at-home finger-prick blood tests. ELSA (Early Surveillance for Autoimmune diabetes) is a first of its kind study, funded by Diabetes UK and JDRF, which first launched in England, Scotland and Wales last year. Home testing kits are now available to families throughout Northern Ireland.

Type 1 diabetes is caused by an immune system attack on insulin-making cells in the pancreas. ELSA is looking for early warning signs that tell us the immune system is planning an attack. These signs can appear in the blood years – or even decades – before people receive a type 1 diagnosis and allow researchers to find children who have a high risk of developing type 1 in the future.

Edelle Irwin lives in Northern Ireland with her three sons. She says: "When my son, Shane, was rushed to hospital and diagnosed with type 1 diabetes, we had no idea what to expect. If we had recognised the symptoms earlier, that day would not have been the emergency it was."

"Now ELSA is available in Northern Ireland, I'm relieved to be getting my youngest son screened."

Professor Parth Narendran at the University of Birmingham, who leads ELSA, said: "We're delighted to open the ELSA study in Northern Ireland. Over 10,000 children from across England, Scotland and Wales are already part of the study.

"Families identified as at risk are offered education and participation in monitoring programmes, the opportunity to participate in clinical trials and potentially therapies to delay the onset of type 1."

More info: diabetes.org.uk/bal-ELSA

Photography: iStock

NEWS IN NUMBERS

£238,000

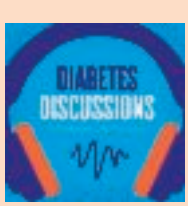
THE AMOUNT raised at our London Bridges Wellness Walk.

10 **THE NUMBER** of years we've been partnering with Tesco to help create a healthier future for people living with and at risk of diabetes.

955

THE NUMBER of you who completed our membership survey. The results will shape our work and your membership experience.

8



THE NUMBER of podcast episodes you can listen to from our first season of Diabetes Discussions.

Meet our news team

Raising awareness of our work is vital, and our news team works with journalists to share news and information about diabetes care, research and our campaigns

OUR NEWS TEAM WORKS CLOSELY with our clinical experts to provide comment and advice across the media. You might have caught our Deputy Head of Care Esther Walden's recent appearance on Steph's Packed Lunch, discussing prediabetes.

You may also have seen the team's work when we launched the Diabetes is Serious report at the House of Commons this year. They secured the front page of the Daily Express, coverage on BBC News and Sky News, and supported people – including Anthony Parker – to talk with media and politicians about their experiences of missing out on regular diabetes checks.

The team also works with famous faces to support our campaigns and fundraising events, such as Spice Girl Melanie C, who supported this year's One Million Step Challenge, and comedian Jack Whitehall, who raised funds for Diabetes UK on his tour this summer.

Media Manager Karan Gadhia with Deputy Head of Care Esther Walden

Remembering Richard Lane OBE

We're sad to share the news that our former President, Richard Lane OBE, passed away on Friday 15 September.

In 2005, Richard became the first person in the UK with type 1 to receive a fully successful islet cell transplant at King's College London. In 2019, Richard told Balance his quality of life had been 'transformed' by the pioneering treatment.

Before the transplants, Richard had lost all his hypo warning symptoms and started slipping into comas. After the treatment, he was delighted that his hypo warning symptoms had returned, saying he was 'unbelievably fortunate to have been in the right place at the right time.'

Richard was our President from 2008 to 2015, when he became our first-ever Ambassador. In his role as President, he visited every Diabetes UK Local Support Group. He loved meeting other volunteers, who he said left a lasting impression on him. Richard was extremely popular with everyone who met him and will be very sadly missed.

NEW – FREE ADVICE AND SUPPORT

COMING SOON: type 2 remission information and support

In January, we'll be launching a brand-new type 2 diabetes remission section on our website. It'll have lots of information on how you can try bringing your blood sugar levels below the diabetes range, and keep them there long-term, without needing to take glucose-lowering medication.

There will also be a new type 2 remission course on Learning Zone, our free educational platform. It'll have guidance on how to have quality conversations with your healthcare team, advice on choosing the right remission approach for you, and real-life remission stories.

Meanwhile, you can get support from people with lived experience of type 2 remission on our online forum.

Visit: diabetes.org.uk/bal-forum

New videos on eating well

Watch our latest five-part video series on Eating Well, focusing on simple, tasty tweaks to some of the most popular foods from African and Caribbean cuisine. Made in collaboration with Diabetes Africa and Food for Purpose. **diabetes.org.uk/bal-LZ-YouTube**

Hypo awareness webpage

Most people with diabetes will know when they're about to have a hypo and can take care of it themselves. But it may be helpful to share the symptoms with loved ones so they can support you if needed. Our hypo awareness webpage has updated information and advice.

diabetes.org.uk/bal-hypo

Have you listened to our podcast?

Our Diabetes Discussions podcast launched this summer. So far, we've covered all sorts of topics that matter to people living with diabetes, including activity, treatments, sleep, technology, and mental wellbeing.

Catch up on all available episodes wherever you get your podcasts – don't forget to like and subscribe!

diabetes.org.uk/bal-podcast

Peter's mum, Beth, has spearheaded the campaign

Help us rewrite Peter's story

Peter Baldwin from Cardiff was 13 when he died after developing diabetic ketoacidosis (DKA). He had undiagnosed type 1 diabetes.

Diabetes UK Cymru has launched a new campaign with Peter's family to rewrite Peter's story and educate GP practices across Wales about the signs of type 1 diabetes.

The Wales team sent every GP practice in Wales a resource kit that includes information about type 1 diabetes and Peter's story.

The campaign has been a huge success, with a great response from GP practices keen to educate their teams about type 1 diabetes.

If you would like to support the campaign, please email wales@diabetes.org.uk or visit diabetes.org.uk/bal-campaign

Fundraising feats

London Bridges Wellness Walk

Our London Bridges Wellness Walk in September was a huge success and raised £238,000. Our amazing volunteers and supporters made a huge contribution to the enjoyment of the walk for participants by cheering loudly, providing services and supporting staff.

Fitness expert Lavina Mehta MBE, warmed up more than 3,000 participants who then walked over London's iconic bridges, finishing at Potters Field near Tower Bridge. Other participants included A Place In The Sun presenter Craig Rowe and Love Island contestants Mehdi Edno and Summer Botwe.

Laura Sevestre came all the way from Belgium to volunteer for us. She says: "I was diagnosed aged three and have lived with type 1 for 33 years, and I'm a lifetime member of Diabetes UK. I've been fundraising since I was a child, trained as a speaker for Diabetes UK and I co-ordinate a peer support group.

"I was very excited about volunteering at the London Bridges Wellness Walk. I think it's so important to encourage healthy living for all – not just for people with diabetes – and to raise funds for such a valuable cause.

"It was lovely to be able to congratulate the walkers on their huge effort. My favourite part of the day included chatting to a walker who was feeling faint at our glucose tablets stand, and another lady who works in the field of diabetes. It's always so fascinating to exchange diabetes stories! It was refreshing seeing so many people supporting diabetes and taking it seriously, just like I have to do day-in, day-out."

For info on volunteering, email: fundraising@diabetes.org.uk

Crossing the bridge: Our walk combines fitness and fundraising

Award-winning partnership

WE'RE DELIGHTED THAT our partnership with Cancer Research UK, British Heart Foundation and Tesco has been voted 'Most admired' partnership in the 2023 Corporate–Non-Profit Partnerships Barometer report. Our Health Charity Partnership brings together the skills and expertise of the three charities and Tesco, to help lower the risk of cancer, cardiovascular disease and type 2 diabetes.

Beginning in 2018, the partnership has engaged millions of customers and Tesco staff through various health initiatives and fundraising. Together, we have delivered health insights and interventions, including our joint initiative, 'Let's Talk', where we delivered specialist training to Tesco pharmacists and pharmacy colleagues to support their conversations with customers. Over £25m has been raised for all charities, all with the vision of improving the nation's health.

New Live Well Hub launched

In September, Belfast Lord Mayor Ryan Murphy joined Diabetes UK staff to mark the official opening of the new Diabetes UK Northern Ireland Live Well Hub at the Houben Centre, north Belfast.

The Belfast Hub is the third of its kind launched by the Northern Ireland team as part of a five-year project, with sites already established in Ballymena and Bangor. Funded by the National Lottery Community Fund, the hubs provide a one-stop-shop for diabetes-related information, advice and support from both local healthcare professionals and members of the Diabetes UK Northern Ireland team.

Learn more about the Live Well Hubs in Northern Ireland: diabetes.org.uk/bal-live-well

Photography: **Gemma Griffiths**

THE INSIDER

The latest diabetes health news, research and developments

Transforming lives through research

One hundred years ago, Frederick Banting and John Macleod won a Nobel Prize for discovering insulin – the treatment that has saved millions of lives around the world. Since then, we've been pushing for further breakthroughs.

To celebrate all we've achieved, we're showing how the research you've helped fund has revolutionised life for people with diabetes in our new report: Transforming lives through research.

We've helped reduce the risk of complications

The complications of diabetes can have a devastating impact on lives. Diabetes care changed after a 20-year landmark trial we supported showed that managing blood sugar levels and blood pressure could significantly reduce the risk of complications and premature death.

We've improved diagnosis

It's not always easy to identify which type of diabetes someone has. Our research in the 1990s uncovered the genetic causes of rare forms of diabetes. It later helped to find a simple test that could distinguish between type 1 and type 2 diabetes. These discoveries have meant more people get the right diagnosis and treatment.

We helped develop the artificial pancreas

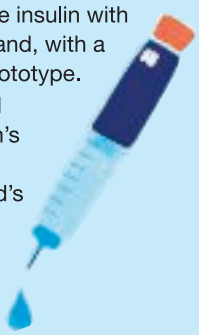
We bought the UK's first artificial pancreas in 1977. Since then, we've continued to invest in research to improve it and build the evidence to show it could transform lives.

Earlier this year, the NHS released draft guidance recommending the technology for thousands of people living with type 1. This is getting us closer to a day where no one living with diabetes must do the job of a pancreas, 24/7.

We funded the first insulin pen

Injecting insulin used to mean glass syringes and steel needles. With a young daughter with type 1, Dr Shelia Reith knew there had to be a better way. She came up with the idea for a device that would give insulin with the push of a button and, with a team, developed a prototype.

In 1980, we funded a trial to test the team's prototype. Thanks to our support, the world's first insulin pen revolutionised how people inject insulin.



We made checking blood sugars simple

In 1987, our funding allowed Professor Anthony Turner to pioneer the first handheld blood glucose meter. Decades later, we proved monitoring provided by Flash glucose technology could radically improve the lives of people with type 1. The NHS now recommends this tech to everyone with type 1 and some people with type 2 diabetes.

We fast-tracked education courses

In 2000, we supported researchers in developing the life-changing course Dose Adjustment For Normal Eating (DAFNE). It gives people living with type 1 diabetes the tools and confidence to live well.

Education courses have since been developed for people living with type 2 diabetes. Today, everyone in the UK with diabetes should be offered the chance to attend a course.

We pioneered nationwide eye screening

We supported Professor Roy Taylor in developing screening for early signs of eye damage. The success of the research led to a nationwide eye screening programme, and means that diabetes is no longer the leading cause of sight loss in the UK.

We discovered a drug that protects against heart attacks and stroke

In 2003, a major trial we funded showed a cholesterol-lowering drug, statins, could reduce the risk of a serious heart problem by more than a third, and the risk of stroke by almost half, in people with type 2. Statins are now used worldwide to protect people with diabetes.

We've prevented amputations

We set up the UK's first-ever diabetes foot clinic at King's College London in 1981. It showed that with the right expertise and specialist care, around half of major amputations could be avoided.

"Research can change lives and help future generations. So, I'm grateful for the life-saving work Diabetes UK scientists do, as they strive for answers to unanswered questions."

Sarah Parsons,
who lives with type 2 diabetes

"The advances in technology over the years have been life-changing. It's incredibly important to celebrate the research that made it possible"

Pete Davies
was diagnosed with type 1 diabetes aged two, over 60 years ago

We're tackling the root cause of type 1

In 1979, Diabetes UK scientists, led by Professor Gianfranco Bottazzo, found evidence that preventing the immune system's attack could stop type 1 diabetes. Their discovery sparked treatments that re-educate the immune system, called immunotherapies.

Since 2015, we've invested over £3 million to set up a network of scientists dedicated to testing immunotherapies, and making them a reality in the UK.

TYPE 1 DIABETES GRAND CHALLENGE

Helping people with type 1 make their own insulin

Our scientists made transplants of donor insulin-making beta cells – islet transplants – possible in the UK. This life-saving treatment is available for people with type 1 with no hypo awareness and who experience severe hypos. It allows people to temporarily make enough of their own insulin to reduce or stop insulin injections, have steadier blood sugar levels, fewer severe hypos and regain hypo awareness. Now, thanks to the Type 1 Diabetes Grand Challenge, we're supercharging progress to grow new beta cells in the lab or directly inside the body.

We put type 2 into remission

Our trailblazing DiRECT trial proved a weight management programme could help people with type 2 go into remission and stay there. Now, remission programmes inspired by DiRECT have been rolled out through the NHS and we're testing other routes to remission – to give more people the best chance to benefit.

We've learnt more about type 2 and how to prevent it

In the 1980s, we funded Professor Sir Stephen O'Rahilly to investigate the genetics that underpin type 2, helping us to understand why some people are more at risk.

We discovered that different ethnic groups experience different risks of type 2 diabetes. This helped to push the need for Black and South Asian people to be screened for type 2 earlier than people from other ethnicities.

THE CHANGES WE'VE SEEN over the last 85 years belong to everyone who supported us with their time, donations, or support. But we know there's still more to do. That's why we'll continue to fund and champion research today that gives us diabetes success stories for tomorrow.

Read our impact report at: diabetes.org.uk/our-research/about-our-research/our-impact

New research under the spotlight

2023 is shaping up to be an exciting year for diabetes research. Here's a snapshot of some of the latest discoveries

Core genes for type 1 revealed

Research we funded, led by Professor Helen Colhoun and Professor Paul McKeigue at the University of Edinburgh has uncovered new 'core' genes that are central to the development of type 1 diabetes.

Professor Helen Colhoun

The team analysed genetic data and blood samples from almost 5,000 people with and 7,500 people without type 1 and developed a new method of exploring how different genes impact the risk of developing the condition.

By looking at how genes control the activity of other genes, they pinpointed, for the first time, nine 'core' genes which powerfully affect type 1 risk. The core genes are all linked to the immune system and bring to light new immune processes that could help scientists to develop immunotherapies – treatments that target and re-programme the immune system.

Dr Elizabeth Robertson, our Director of Research, said: "This research has broken new ground in our understanding of genes that underpin type 1, and how they contribute to the immune attack that causes the condition. The discovery that these core immune system genes are central to the development of type 1 diabetes opens the door to a raft of new targets for immunotherapies.

Professor Paul McKeigue

"With the first ever type 1 diabetes immunotherapy approved for use in the US last year, we are on the brink of a new era for type 1 diabetes therapies that could see it transformed from a lifelong condition to one that can be prevented, treated and ultimately cured."

Words: **Fiona McLoone.** Photography: **Shutterstock; Damian Prestidge**

Depression is a risk factor for type 2 diabetes

Previous research has shown that people with type 2 diabetes are around twice as likely to experience depression compared to those without diabetes. And we also know that people with depression have a higher risk of developing type 2 diabetes. But it hasn't been clear if depression caused type 2, or vice versa. Or if undiscovered factors are responsible for the link.

Professor Inga Prokopenko

To help us answer this question, Professor Inga Prokopenko and her team at the University of Surrey, analysed genetic data from hundreds of thousands of people in the UK and Finland. They used a statistical method, called Mendelian randomisation, to help unravel whether type 2 diabetes and depression can cause the development of the other.

Their analysis revealed for the first time that depression directly causes an increased risk of developing type 2. It also showed that higher bodyweight partly, but not wholly, explained the effects of depression on type 2.

They also pinpointed seven genetic variants that contribute to both conditions. The shared genes play a role in insulin production and in levels of inflammation in the brain, pancreas or fat tissue. These changes the genes bring about inside the body can potentially explain how depression increases the risk of type 2.

The researchers didn't find any evidence of a cause-and-effect relationship of type 2 diabetes on the development of depression.

But there are indirect links between the conditions – both are affected by risk factors such as living with obesity or low levels of physical activity.

Lead researcher, Prof. Prokopenko, said: "Our discovery illuminates depression as a contributing cause of type 2 diabetes and could help to improve prevention efforts.

"The findings are important for both individuals living with the conditions and healthcare providers, who should consider implementing additional examinations to help prevent type 2 diabetes onset in people suffering from depression."

We hope this new knowledge will help healthcare professionals to improve care and support for people with a history of depression and prevent more cases of type 2 diabetes.

"The findings are important for both individuals living with the condition and healthcare providers"

Andy Rose shared his experiences of type 2 and depression with Balance readers in winter 2022

Updates from EASD 2023: Europe's largest diabetes conference

Delegates gathered in Hamburg for the 59th EASD Annual Meeting

Re-evaluating type 2 diagnosis in women

Dr Adrian Heald from Salford Royal Hospital presented new research suggesting the threshold for diagnosing type 2 diabetes in women under 50 years should be lowered to avoid missing potentially thousands of cases.

Women are on average diagnosed with type 2 at a later age than men. Dr Heald and his team explored if this might in part be down to sex differences in HbA1c levels.

Dr Adrian Heald

HbA1c is a test used to diagnose type 2 diabetes. It tells us about average blood sugars levels over the last three months and measures what's called glycated haemoglobin. This is something that's made when the glucose (sugar) in your body sticks to your red blood cells.

Researchers think that red blood cell survival is shorter for menstruating women because menstrual blood loss leads to more cells being replaced. And this could make a HbA1c test less accurate, causing cases of type 2 diabetes to go unrecognised in younger women.

To find out more, the team examined HbA1c tests across laboratories in the UK from over 1 million people. They looked at sex and age differences of those who had not been diagnosed with diabetes and had an HbA1c of equal to or less than 48 mmol/mol (6.5%) – the recommended cut-off point for diagnosing diabetes.

They found that at a HbA1c of 48 mmol/mol, 50% fewer women under the age of 50 could be diagnosed with type 2 diabetes compared to men. While for women over 50, this decreased to only 20% fewer diagnoses. The researchers also estimated that 35,000 currently undiagnosed women under the age of 50 in England would be diagnosed with type 2 diabetes if the HbA1c diagnosis threshold was lowered from 48 to 46 mmol/mol (6.5% to 6.4%).

Dr Lucy Chambers, our Head of Research Communications, said: "More research on sex differences in thresholds for a type 2 diagnosis is needed to inform any changes to clinical practice. In the meantime, clinicians should follow the current guidance of not ruling out type 2 diabetes based on a one-off HbA1c below the diagnostic threshold.

"Receiving an accurate and timely diagnosis ensures that women get the treatment and support needed to manage their type 2 diabetes and avoid long-term complications."

"The team examined HbA1c tests across laboratories in the UK from over 1 million people"

Stem cell therapy to bring back beta cells

Researchers at a US company called Vertex have busy been testing a pioneering a new treatment that uses stem cells to replace insulin-producing beta cells in people with type 1 diabetes.

Six adults with type 1 diabetes, who all have no hypo awareness and a history of severe hypos, have now received a transplant of the lab-made beta cells (called VX-880).

The results are impressive – all six of the participants have seen improved blood sugar levels, with more time spent in range, and three people have been able to stop taking insulin altogether.

Tests also confirmed that they're all producing their own insulin in response to food. This is exactly what a normal functioning pancreas would do and suggests the manmade beta cells are working as they should.

Although the results show huge promise, people treated with VX-880 have to take immunosuppression drugs to prevent their immune systems from attacking the replacement cells. And this does come with a risk of side effects.

The future goal is to create a version of the treatment that does not need immunosuppression drugs.

Vertex are now working on enclosing the cells in a device that would protect them from the immune system as well as genetically modifying the cells, so they won't trigger an immune attack.

Dr Lucy Chambers, our Head of Research Communications, said: "While there's still much work to do to get these types of therapies into clinical practice, this trial and other research programmes such as the UK's Type 1 Diabetes Grand Challenge, are bringing us closer to the day when living with type 1 diabetes no longer requires relentless, round-the-clock self-management, and short- and long-term complications are a thing of the past."

"We eagerly anticipate the next tranche of results and the start of the UK-based trial of Vertex's therapy."

Semaglutide stands up in the real-world

A range of drugs, called GLP-1 analogues, are used to manage blood sugar levels and weight in people type 2 diabetes.

New findings were revealed from a study that involved more than 23,000 people with type 2 diabetes who used used a GLP-1 drug called semaglutide for up to three years. Semaglutide is sold under the brand names Ozempic, Wegovy and Rybelsus. The drugs work by mimicking the effects of hormones that we make in our gut, which tell our bodies when to release insulin and when signals should be sent to our brains to make us feel full.

This study is the first to investigate long-term use of the drug outside of clinical trials. Results showed that six months after starting the drug, people had:

- Lowered their HbA1c by on average 9mmol/mol (from 60 mmol/mol (7.6%) to 51 mmol/mol (6.8%))
- Reduced their body weight by 4.7 kg (from 94.1 kg to 89.7 kg).

Importantly, the researchers found that both these benefits were maintained in the longer term over three years of follow-up. People who consistently took semaglutide once a week, as prescribed, had the best results. In this group, HbA1c remained reduced by 9mmol/mol after two years and by 6mmol/mol after three years. Whereas body weight was reduced by 6.0 kg after two years and 5.8 kg after three years.

Photography: **EASD – European Association for the Study of Diabetes; Vertex; Shutterstock**

A year in the life of the Type 1 Diabetes Grand Challenge

Our £50 million partnership with JDRF and the Steve Morgan Foundation is off to a fantastic start. Here we take a look at the progress that's been made to jump-start life-changing research that will propel us towards a cure

Readying the starting blocks

Every year, the Research Funding Teams at Diabetes UK and JDRF receive hundreds of applications from researchers across the UK. This year, we've had the extra challenge of building brand new funding calls from scratch for the Type 1 Diabetes Grand Challenge and preparing the ground to enable us to award millions of pounds of funding to the best scientists and ideas.

In record time, we've invested over £20 million into brilliant minds and projects. Before we can award funding, we need to invite scientists to come up with research ideas and bid for money to make them happen. As a first step, we brought together a group of leading international scientists to advise us on the precise focus of the funding calls we put out to the scientific community.

Once funding calls are open, we start to receive and review exciting proposals. Each application goes through rigorous review, getting scrutinised by scientific experts and people living with and affected by type 1 diabetes. They provide vital feedback on whether researchers have shown a real commitment to making sure their research is relevant to people with type 1 and is involving them in a meaningful way.

We ask researchers for evidence that people with diabetes are involved at all stages, from planning and designing their projects to carrying out their research and sharing what they find.

All of this means we're placed to fund the most promising projects and best quality science, which best meets the needs of people living with or at risk of type 1 diabetes.

Replacing beta cells

To cure type 1 diabetes, we need to find a way to give people new insulin-making beta cells so the pancreas works as it should to perfectly manage blood sugar levels. Scientists have been working on making new beta cells in the lab using stem cells, with the hope of transplanting these into people with type 1. But lab-grown beta cells just aren't as good at managing blood sugar levels as real beta cells.

There's also excitement around the possibility of being able to rescue beta cells and encourage new ones to grow directly inside the body. But research here is at a very early stage.

Over the past year, the Grand Challenge has been making a plan for how we can stimulate research that will help us to accelerate progress.

To ensure we're plugging as many gaps as possible, we set out an approach to support projects all along the research pipeline:

We're working with experts to ensure every penny is spent on research with the greatest potential

"In record time, we've invested over £20 million in brilliant minds and projects"

- To push the most promising ideas from the lab to the clinic so that treatments can make a difference to people with type 1 diabetes sooner.
- To support innovative, high-risk, high-reward ideas.
- To create a bank of beta cells, made from stem cells, that can be used by scientists in the UK. This aims to allow more crucial beta cell research to happen and to grow the

community of researchers in the UK who are dedicated to working on beta cell therapies.

We've invited researchers to apply for funding in all these areas this year. As of November 2023, we've awarded over £13 million to six pioneering new projects.

- At the University of Dundee, with £1.5 million, Dr James Cantley is developing new drugs to help people with type 1 to regrow their own beta cells so they can make their own insulin again. Finding ways to grow these cells in their own pancreas, instead of using donor or lab-grown cells, would also prevent the immune system from attacking and destroying the new 'foreign' cells.
- At Imperial College London, with £2 million, Dr Vicky Salem is creating a device that can be transplanted into someone with type 1 to deliver a fresh supply of beta cells. She's using state-of-the-art 3D bioprinting to make a protective 'case' for the beta cells, which can keep harmful immune cells out and let nutrients and oxygen in.
- To help fast-track beta cell therapy ideas towards the clinic, we've just awarded over £10 million to four new projects that will improve the function of beta cells after transplantation, develop better, longer-lasting beta cells grown from stem cells, and engineer novel ways to help transplanted cells survive and thrive.

We can't wait to properly introduce our latest beta cell Grand Challenge scientists and their cutting-edge projects in the next issue of Balance.

At the end of this year, we're also hosting an innovation event to spark cross-disciplinary collaborations and outside the box thinking, with the potential to advance progress in beta cell therapy research. Following the event, £1 million of funding will be offered to support researchers to grow and test their innovations.

Tackling type 1's root causes

If we're to cure or prevent type 1, we need to tackle the root of the problem – the immune system's attack. New treatments called immunotherapies are designed to do this. They reprogramme the immune system to stop it from attacking and destroying beta cells. But they can't yet tackle the immune system's many lines of attack.

So, the Grand Challenge has awarded over £3 million into three projects to find more and better treatments to avert the immune system's strike.

- At the University of Exeter, Professor Sarah Richardson is exploring how and why some people's immune system targets their beta cells and how these cells may be able to fight back. She's also investigating how this process might differ between people with type 1, which could help us deliver more effective personalised treatments.
- Elsewhere, we've just funded another two projects focused on type 1 root cause. They both aim to find better ways of keeping the immune system in check, so beta cells can survive. We'll be able to share all the exciting details about these new projects very soon.

Novel insulins

We've come a long way since the discovery of insulin over 100 years ago. But managing type 1 still requires a huge amount of effort, even with the advancements in technology. So, we need newer, better insulins that can work faster and even respond to changing blood sugar levels. That's why the Grand Challenge is driving research that aims to develop the next generation of insulins.

In May, we hosted a virtual event where world-leading scientists shared their progress, challenges and ambitious ideas for new insulins. The experts discussed ways of only switching insulin on when sugar levels reach a certain point and creating insulins that can be taken in different ways.

Next year, researchers will have an opportunity to take part in a Dragons' Den, and pitch their project ideas to us for funding. We can't wait to see who manages to impress the Dragons!

TYPE 1 DIABETES GRAND CHALLENGE

2023 has given us a taste of things to come. The Grand Challenge is running for five years, and we couldn't be more excited to see what's in store next and where the research could take us. You can keep up to date with the latest progress and developments of the Grand Challenge at: type1diabetesgrandchallenge.org.uk

Words: **Fiona McLoone.** Photography: **iStock**

DiABETES UK
KNOW DIABETES. FIGHT DIABETES.

LEARNING ZONE

Join more than 100,000 people already using Learning Zone, so you can manage your diabetes with confidence.

Learn the fun way! Through videos, quizzes and podcasts you'll get free, tailored advice from our diabetes experts and learn top tips from others living with diabetes.

Explore for yourself at diabetes.org.uk/bal-zone

OVER TO YOU

Your views — from the postbag, forum and X

WIN! Resplendent Roses Collection, fertiliser, peat-free compost **WORTH £59**

viewpoint

- Resplendent Roses Collection in 9cm pots – The Fairy, rekord Cubana and Sea Foam White
- 1kg bag of Plant Fertiliser
- 40l bag of peat-free compost

hayloft

STAR LETTER

Sustainable supplies

Is anyone else concerned about the increasing use of plastic being used for the treatment of diabetes? Whilst not wanting to return to glass syringes, I am very concerned that we are leaving our children an inheritance of used disposable syringes. I still insist on my short-acting insulin being supplied to me in ampules to use with my reusable metal insulin pen. However, the pharmacy constantly wants to give me disposable pens. My long-acting insulin is only available in disposable pens, which means I am concerned daily about the future of our planet and the waste I am contributing.

There is nothing wrong with the reusable metal insulin pens and glass ampules. What do other people think?

Andrea Smith, via email

STAR LETTER: Go to diabetes.org.uk/bal-comp-terms for full terms and conditions.

ON THE FORUM
MY DIABETES DIAGNOSIS HAS CHANGED!

MarinaDE: I was recently diagnosed with diabetes. Just over a decade ago, I'd had my pancreas resected because of cancer, so the provisional diagnosis was type 3c. But abdominal imaging showed that the surgery had only taken about 10–15% of my pancreas – the remainder looked healthy. A type 1 antibodies test came back positive. I'm type 1! I was flabbergasted because I'm 50. The theory is that Covid could be triggering the disease in older people.

Inka: Interesting. It's good you've got a definite answer. The oldest person diagnosed with type 1 was in their 90s (way before Covid) and more adults than children are diagnosed with type 1. There are a number of people here diagnosed at a similar age to you.

Robin: @Inka is right, there are quite a few of us on here, I was diagnosed with type 1 aged 51, long before Covid had reared its head.

Helli: It looks like there have been further studies into type 1 diabetes diagnosis and nearly 40% of people with type 1 are diagnosed over the age of 30.

SB2015: I can see why there may be a greater number of diagnoses for T1 in older people. Our T1 usually develops more slowly (maybe our beta cells are made of stronger stuff, or the antibodies are more sluggish – I know that is not scientific at all). I am pleased that you now have a correct diagnosis. There is loads of experience on here so fire away with any questions.

Our Senior Clinical Advisor, Katie Bareford, says: The evidence to suggest coronavirus could trigger type 1, type 2 – or even a new type of diabetes – is growing, but we need to keep in mind that everything we know so far has come from only a handful of observational studies. Although more adults than children are diagnosed with type 1, the incidence peaks aged 6 months to 5 years and again at puberty.

Join the conversation at: diabetes.org.uk/bal-forum

FROM X (Formerly Twitter)

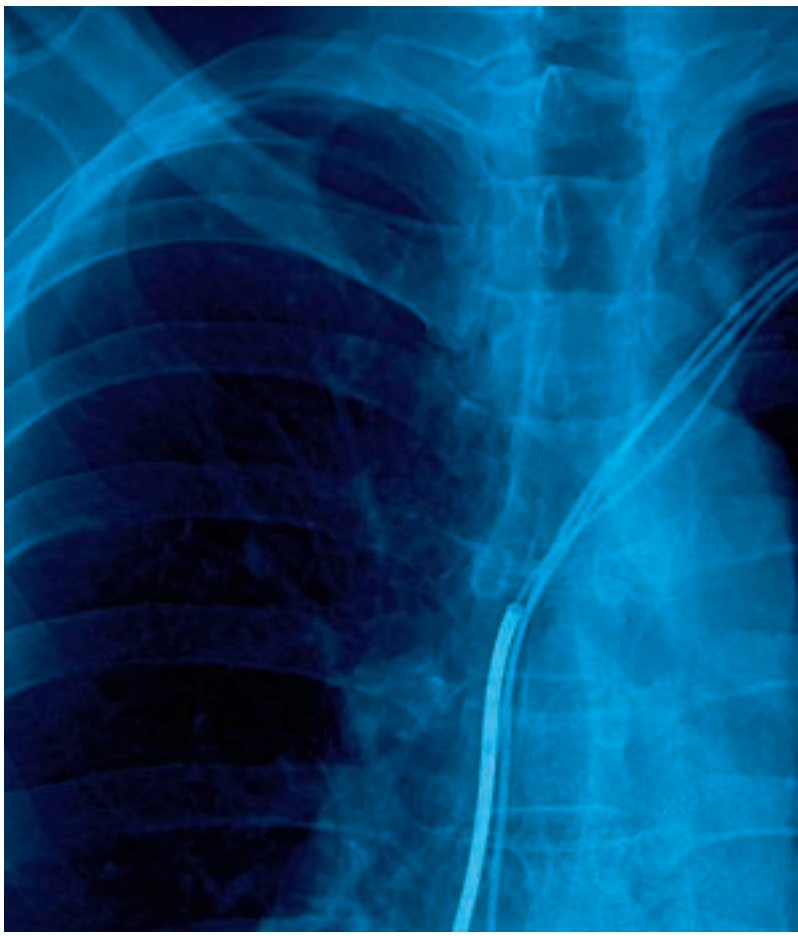
#GreatNorthRun Shout out to my son-in-law Michael who is running today for #DiabetesUK Doesn't he look glad to be there? **@apapworth58**

One small step for man… just under 500,000 to go for Diabetes UK charity challenge **@TheNeg**

Over the weekend, Paul, our Business Development Manager from our Castleford Depot, completed a skydive for Diabetes UK. Well done Paul, this is such a fantastic achievement and for a great charity! #CharitySkydive #Chairty #Castleford #DiabetesUK #LynxFuels **@LynxFuels**

ASK THE EXPERTS

Our team answers your questions about diet, lifestyle or treatment



EXPERT TEAM

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

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

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

Q I have had type 1 for nearly 50 years and use a Medtronic Guardian Sensor 4 (G4) Continuous Glucose Monitor (CGM). This has really helped me improve my time in range. I've been diagnosed with an abnormal heart rhythm. The cardiologist recommends a pacemaker, but I'm worried it will affect my CGM. I really don't want to return to finger prick testing.
Jim, Crowborough

Esther says: A pacemaker is a small electrical device that is usually implanted just below the left collar bone. It sends an electrical impulse to the heart, via electrode leads, causing it to beat regularly and not too slowly. Some people might have an implantable cardioverter defibrillator (ICD), which is similar to a pacemaker. An ICD sends a larger electrical shock to the heart that essentially reboots it to get it pumping again. Some devices contain both a pacemaker and an ICD.

Having a pacemaker can significantly improve a person's quality of life, and it can be lifesaving for some people.

The Medtronic G4 is a continuous glucose monitor (CGM). CGMs allow people with diabetes to check their sugar levels without needing to prick their finger.

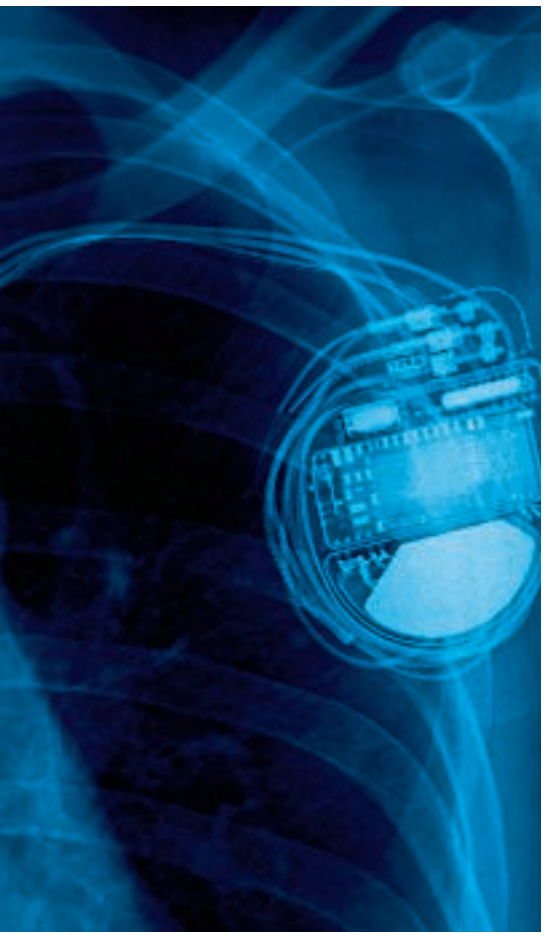
As they are now widely used and most people will have heard about them, it is easy to forget that both pacemakers and CGMs are sophisticated medical devices. So, it's important to ensure that both can work safely and efficiently when used together. Unfortunately, little research has been performed on using CGM and pacemakers simultaneously.

In response to your query, we checked with the three main manufacturers of CGM. They either told us they had no information on this or that their sensor has not been evaluated for use with other implantable medical devices such as pacemakers. So, it is not surprising that your diabetes team were unable to give you an answer.

Our advice is to take a copy of the user manual for your CGM to your next appointment with the cardiologist. They can see the technical specifications and check if it might affect the pacemaker they are planning to use.

Each pacemaker manufacturer gives detailed instructions about the sources of electromagnetic interference you should avoid.

You could also contact the Medicines Healthcare Regulatory Agency (MHRA) if you are concerned about interference from the CGM.



If you know which pacemaker you will be fitted with, you can talk to your diabetes team for information on whether you can still use a CGM sensor and what impact it might have. They may also be able to support you or your cardiologist with any questions about using the CGM system with a pacemaker.

Your cardiology clinic will give you detailed information about pacemakers and everyday electrical gadgets, most of which can be used safely.

We suggest making sure clinic staff know if you are using your mobile phone to view your sugar levels as they can advise on how far away the mobile phone should be from where your pacemaker is.

For more info on CGM technology, visit: diabetes.org.uk/bal-cgm

Photography: **iStock; Centre for Ageing Better**
PLEASE NOTE: The experts can't take phone calls

Q I developed type 2 diabetes about 10 years ago and have recently been told I have osteopenia. I'm worried about this developing into osteoporosis and what affect it will have on me and my diabetes. Is there anything I can do to manage this?
Caroline, Manchester

Esther says: Osteopenia is a condition where you have a lower bone density than average for your age but not low enough to be classed as osteoporosis. Bone density is how much bone tissue you have in your bones. If you have been told you have osteopenia, this can lead to an increased risk of breaking a bone.

Osteopenia does not always lead to osteoporosis, and there are steps you can take to reduce the risk of developing osteoporosis.

There is a known link between both type 1 and type 2 diabetes and osteopenia. There are some medications used to treat type 2 diabetes that possibly impact bone density, but more research is needed into this area.

Some steps you can take to reduce the risk of developing osteoporosis and help your bones stay stronger include lifestyle and dietary choices. Increasing your physical activity and including some resistance exercises can improve your bone health and can also help improve your cardiovascular and mental health. Before you start a new physical activity, you should talk to your healthcare team.

A healthy, balanced diet is recommended for everyone and can improve your bone health. Calcium, found in dairy products, leafy green veg, tofu and dried fruits, is good for maintaining bone health. Vitamin D – found in foods like oily fish – is also good. But its main source is direct sunlight – some people take a supplement during winter.

Stopping smoking and limiting alcohol intake can also help protect against osteoporosis.

There are some factors, however, that increase your risk of osteoporosis and risk of fracture which cannot be changed. These include age, family history, and if you have naturally smaller, less dense bones. As you age, your bone tissue loses strength and there is a general increased risk of bones breaking, regardless of bone density. From about your late 30s, the amount of bone tissue you have naturally decreases, and this loss varies from person to person. Research has shown you are more likely to break a bone if one of your parents broke their hip. Women are at more risk of osteoporosis than men as they lose bone rapidly in the first few years after menopause.

Find free resources to help you be more active at: diabetes.org.uk/bal-exercise

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

JEWEL IN THE CROWN

Beauty journalist, businesswoman and diversity campaigner Ateh Jewel says being diagnosed with type 2 diabetes forced her to confront some painful truths

Ateh Jewel says she learned at a young age that, as a Black woman, many things were deemed 'off limits'.

"When I was 15, I went to a beauty counter and asked for a pink blush. I was told, 'Black girls don't blush, and Black girls don't do pink,'" she says. "That's always stayed with me, that feeling of not being accepted and being told, 'that's not for you, that world of colour and fun.'

"I hope my 12-year-old twin daughters never feel that sense of exclusion."

A sporty, academic child who loved athletics, ballet, and watching old MGM musicals, Ateh says that, growing up, she associated food with emotion.

After her parents' turbulent divorce when she was eight, Ateh was forced to spend long periods of time apart from her mum, who didn't have permanent residency in the UK. She says she filled the void with schoolwork and food.

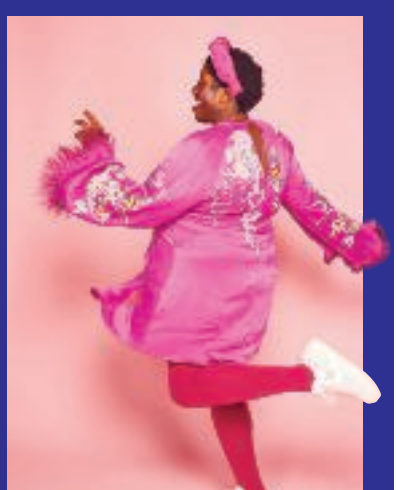
"Trauma can manifest itself in many different ways," she says. "I was never taught how to process my emotions in a positive way. I had a very toxic, unloving relationship with my body and used food as a reward. For me, not having healthy coping mechanisms manifested into type 2 diabetes, and that's nothing to be ashamed of."

Ateh thinks she had been living with diabetes for some time before she was diagnosed in August 2016. This is not unusual – type 2 diabetes can go undiagnosed for years if symptoms are missed. We estimate that 850,000 people in the UK are currently living with type 2 but are yet to be diagnosed.

"I'd wake up sweating and shaking, I was vomiting and having diarrhoea, and I was so thirsty," says Ateh. "But I ignored it, which is the worst thing you can do. I powered through.

"As a beauty journalist, it was actually my dehydrated skin that prompted me to go to the doctor, who confirmed I had type 2 diabetes."

At the time of her diagnosis, Ateh had very little knowledge or understanding of the condition.



"It was empowering to see I could take control of my health. Not everyone has the opportunity"

"I knew I had to change my entire lifestyle," she says. "I felt like I'd been given this beautiful gift of a healthy body and I'd trashed it.

"I don't take my health for granted, but my body had become a dumping ground. So, type 2 diabetes felt like a warning. I knew that if I didn't make changes, the next stage could have been a stroke or heart attack or something I couldn't bounce back from."

Ateh was initially advised to start taking insulin, but after talking to a friend who is a diabetes specialist based in the US, she started taking metformin and making drastic lifestyle changes.

"I approached it in a very academic, nerdy way. I tried to take my emotions out of the equation and asked myself, 'what can I do to get better? And how did I get here?'"

Ateh says that from the age of 19 when she left home to study history at Bristol University, until her type 2 diagnosis aged 38, she gained 11 stone.

"That in itself should have rung alarm bells," she says. "At university, I felt totally alone. I had no emotional or financial support, and that was not good for my eating habits. People around me were having fun, and I just remember crying for three years."

After university, Ateh threw herself into building a career, landing a job as a beauty journalist on a national magazine, going on to forge a successful freelance career.

"I knew, based on my body, my skin and hair, that I would never be a beauty director for a magazine. It was a game I would just never win. But I had the fire and fury to want to prove that I am worthy, and I poured that into my freelance work."

By applying her tenacious work ethic to her diabetes management, Ateh quickly lost weight and reduced her HbA1c.

"Thanks to the metformin, exercising

After a rollercoaster childhood and tackling her health as an adult, Ateh is now helping to make the world better for her twin daughters and other young people

more, and acknowledging there was a problem, I just felt so much better in myself," she says.

"All my horrible symptoms stopped. It was empowering to see I could take control of my health. Not everyone has the opportunity to fix themselves. But I saw diabetes as a symptom of a spiritual break in myself that had to be healed."

Ateh says consistency and balance have been key to managing her diabetes. "Previously, I'd have considered those dirty words," she says.

"I grew up around a lot of diet culture, where women were always trying faddy diets they believed would be the answer to their weight problems.

"Observing that behaviour made me think that dieting was for women who didn't have any power. I didn't want to be powerless by dedicating myself to eating a miserable cabbage soup diet.

"Diabetes forced me to rewire a lot of limiting beliefs. Now I know that eating healthily is empowering."

As Ateh's health improved, the pandemic proved a huge turning point, both personally and professionally.

"It really changed my life," she says. "When the Black Lives Matter movement shook the world in 2020, it was a moment where I wanted to talk about all the things I'd held in for 20 years. I really wanted to make the world

better for my children.

"I think that because of the pandemic, more people understood a bit about what it feels like to be Black. Where you're always judged, people are looking at you, and you constantly live with a low-level threat. You're waiting for something to happen because people don't give you the benefit of the doubt.

"It gives you an anxiety and a fear and if you've never lived with that, it can be difficult to fully understand. It's quite a toxic way to live."

Ateh started posting reels on Instagram, talking frankly about race, inequality, and beauty. "I used to always wear grey and black because I thought they were chic and stylish, but I started embracing colour and being my most authentic self. I am very vocal and political. I love history and lip gloss – why can't I talk about both at the same time?"

In 2021, Ateh launched the Dr Ateh Jewel Education Foundation. It aims to help financially support Black and mixed heritage students in further education.

Today, she's a regular on TV, appearing on This Morning, Good Morning Britain and starring as a judge on the BBC's Glow Up: Britain's Next Make-Up Star.

Her brand, Ateh Jewel Beauty, has created a successful range of beauty products for darker skin tones despite facing a number of setbacks along the way. Many factories would question her beauty range and ask whether individuals with darker skin have the means to purchase luxury items and whether it is worth creating a bespoke formula for such a customer base.

Ateh is also a well-respected diversity expert, campaigning for better representation in the beauty industry, and uses her position to shine a light on health inequalities.

"There's a lot of racist nonsense

Words: **Louise Zecevic.** Photography: **Neale Haynes.** Styling: **Kellie Daggett**

Tackling inequalities

- Our health is influenced by the conditions in which we are born, grow, live, work and age – the wider determinants of health. These factors have a particularly strong influence on the risk of developing type 2 diabetes and gestational diabetes.
- We know that diabetes doesn't affect everyone equally. Your ethnic group, where you live, and your income all affect your chances of getting type 2, the care you get for any type of diabetes, and your long-term outcomes.
- We're committed to tackling this inequality and have launched a Tackling Inequality Commission to view the multiple factors that contribute to health inequality through the lens of those most at risk of inequality in diabetes, namely those experiencing poverty as well as Black and South Asian communities.
- Co-chair of the Tackling Inequalities Commission, Dr Faye Bruce, said: "We'll listen to the experiences of underserved communities to understand how to include and support the drive to equity, fairness and improvements for all across our health and care system."
- **For more info, visit: diabetes.org.uk/bal-commission**

that prevents people from getting proper health care," she says. "People from under-represented backgrounds need to be believed, they need to be heard, and they need to be valued.

"When I talk about racism and diversity, it's not about judging and finger-pointing. If we all hold hands and have strength and honour, I believe we can be better.

"It's a privilege to have the opportunity to speak about things that I'm passionate about. I think the world wasn't ready for who I was 20 years ago. But maybe it's ready to accept who I am now.

"I feel really lucky I was born when I was and am having my career now. I don't take that for granted. I feel a weight of responsibility for all the people who came before me and those that come after me.

"It's like I'm participating in a social responsibility race. People have run incredibly fast to pass the baton onto me. I want to take that baton and run with it as fast and as far as I can."

Ateh's friend, Michelle Griffiths-Robinson, an Olympic athlete and Diabetes UK ambassador, introduced her to our work.

"Diabetes UK does such important work around education and taking the shame out of diabetes," says Ateh.

"People who live with type 2 diabetes often don't feel comfortable talking about it. But if we can take the shame away, we will be supporting so many people.

"I think that most weight problems and addictions are based around shame, really. The moment we get rid of shame is when we can start to get better.

"Today, I no longer need to numb myself with food. Being my most authentic, loving, open-hearted self has replaced that need.

"I'm very hopeful for the future. If you can heal yourself, you can help to heal others."

Emotional eating

- There are many ways that food can affect how we feel, just as how we feel can have an influence on what we choose to eat.
- Eating should be enjoyed, but when we eat mindlessly, we often don't take the time to appreciate what we're eating. This is about trying to change the reason you eat.
- Before reaching for an extra snack, you can try asking yourself, 'am I actually hungry?' Often, you won't be, and removing yourself from the kitchen can help avoid this kind of eating habit. Eating calories that have no nutritional benefits is not good for your diabetes management or your general good health.
- **For more info about emotional eating and diabetes, visit: diabetes.org.uk/bal-food-mood**

A POWERFUL PRESCRIPTION

Social prescribing is an approach to preventing health problems, helping with loneliness and making sure people living with health conditions like diabetes get the practical support they need

Many things that affect our health, like loneliness, isolation, or problems with money, housing or employment, can't be fixed by a medical prescription.

Social prescribing helps bridge this gap. It works alongside traditional healthcare to help resolve issues contributing to poor health and quality of life and connect people to non-medical support.

It can help people get active, develop confidence, and take control of their health.

Keith Harrison, Health Systems Engagement Manager at Diabetes UK, has experience in social prescribing within Primary Care Networks. He says: "It used to be that people with a medical need would contact or be signposted to a GP or a clinician to deal with that medical need.

"But the wider determinants of health were not routinely considered. People might be lonely, they might be bereaved, or they might be working as unpaid carers. But that rarely got picked up because there was often no capacity to deal with it.

"That's why social prescribing is now firmly established at a local level. Most people welcome the support.

"A big part of the role of social prescribing is responding at a time where there's a risk of things heading towards a crisis.

"A social prescriber is there to signpost, link and connect people to the relevant support and services in their area that people may need to know about or may need some assistance to help access.

"The aim is to help people avoid becoming stuck in a cycle of continually going back to their GP surgery because they don't know where else to go, often because their

support network is small.

"Social prescribers are primarily there to empower and help people to help themselves."

Social prescribing has been operating for about five years now. Before social prescribers were introduced, GP practices may have actively signposted someone to local community support, but there was no-one to follow this up. So people who were less confident could remain stuck without the help they needed to find local groups.

Social prescribing goes a step further. It's designed to support people who may require additional knowledge and support to approach other agencies or to get involved in community groups.

"We receive a lot of positive feedback that shows people really value social prescribing support"

The missing link

Social Prescribing Link Workers – sometimes known as social prescribers or community connectors – will take time to listen, get to know you, understand your situation and what matters to you, and help you make a plan.

They come from all walks of life, but tend to be skilled at listening and understanding the communities they support. The personalised support these link workers offer can help people address the underlying issues that may be affecting their health and wellbeing.

For people living with diabetes, social prescribers should be able to signpost to local services that can provide peer support, mental health support, or support to help people manage their nutrition or activity levels.

Stephanie Davis, a Diabetes Support Worker, says: "Social prescribers know their area and the locally available services really well. A lot of what a social prescriber does is working with people to overcome barriers that may be preventing them accessing the support they need.

"We receive a lot of positive feedback that shows people really value social prescribing support."

Link workers usually have more time than a GP to really get to the bottom of what's happening. They may speak with you on the phone or meet you in person – they're often able to be flexible to make sure they meet somewhere comfortable for you. In some cases, they will accompany you to groups and activities and introduce you to people to help you settle in.

Gay Palmer, a Link Worker, says: "If someone is referred to a Social Prescribing Link Worker, they can expect an opportunity to sit and talk with someone. And the beauty of being a Link Worker means we have time to listen.

"We can refer you to things like local groups who may do exercise activities, arts and crafts, or music activities. For some people, it's gardening. For others, it's information and guidance about particular issues they may be having.

"A lady was referred to me this week, and she said: 'I don't think you can help me; I'm not sure there's anything that I am going through that is appropriate. I don't really want to waste your time.' So I said: 'Do you know what? Try me!' By the end of the conversation, I was actually able to help support her, and she was like: 'Wow! Thank you very much!'

"So I would say, come and try a social prescriber – you'll be really pleased with what happens."

SOCIAL PRESCRIBING WORKS PARTICULARLY WELL FOR:

- People with one or more long-term health conditions.
- Those needing support with low-level mental health issues.
- Anyone lonely or isolated.
- Individuals who have complex social needs that affect their wellbeing.

GETTING A REFERRAL

Most social prescribing referrals are made by GPs, but you can also be referred to a local link worker by wider general practice, your local authority, pharmacies, multidisciplinary teams, hospital discharge teams, fire service, police, job centres, social care services, housing associations and charitable organisations. Self-referral is also encouraged.

WALKING IN A WINTER WONDERLAND

The days may be shorter, but there are lots of ways to brighten them and boost your mental and physical health in the process

The urge to hibernate can be irresistible as the nights draw in and the mercury drops. But it pays to resist the pull of the duvet and keep as active as possible in winter, particularly if you have diabetes.

Whatever the season, physical activity helps people who have diabetes live healthier, happier lives. It helps lower blood sugar levels, blood pressure and cholesterol levels, as well as aiding weight loss, building muscle strength, boosting mood and promoting better flexibility and sleep. In the winter, these benefits can be even more valuable.

"It's easy to get stuck in a rut when the weather's bad and daylight is scarce, but if you spend too long on the sofa, your blood sugar levels can run higher than usual, joints can stiffen, and it's harder to keep the winter blues at bay," says our Senior Physical Activity Advisor, Neil Gibson.

"You don't need a gym membership to keep active during the winter. Going outside for regular walks is a great way to maintain physical and mental health. Sunshine is limited at this time of year, so make the most of it and get outside for a dose of vitamin D."

STEVE'S STORY

Steve Yeoman, 47, from Sheffield, has lived with type 1 for 30 years. He says:

In 2018, I was facing diabetes burnout. Whatever I did, I just couldn't seem to keep my blood sugars steady. I thought, 'there must be another way.'

When my wife, Keira, told me on New Years Day 2019 that she'd signed us up for gym membership, my first question was, 'what's the cooling off period?'

She said January was free, so I decided to give it a go. At first, I was really self-conscious about people seeing me run, so I was determined to avoid the treadmill. But I reckoned it would be a 'safe' way to experiment with the effects of activity on my blood sugars. I could have some Lucozade easily to hand. The first time I ran 3km without stopping, I had a eureka moment – I loved it.

I ran on the treadmill for pretty much the whole month of January. But I wasn't keen on the idea of running outside until I went on holiday to Cyprus a little while later. I knew no-one would recognise me there. I managed to run for about half an hour along the sea.

Eventually, I conquered my self-consciousness. I joined parkrun and started to really enjoy running with others.

To mark 30 years of living with diabetes, this year I did four events including the Great North Run, London Marathon, and the Great Manchester Run. I'm now training for the Manchester Marathon in April, which will keep me motivated over winter.

Personally, I find it easier to manage my blood sugars when exercising in the colder months. It can be tricky working out the balance at first, but it's well worth the effort. My HbA1c is down from 58 to 39, and my mental health is massively improved.

The impact of cold temperatures on diabetes

There are certain things to note before lacing up your walking boots and heading for the great outdoors.

Cold weather can affect your diabetes and your general health and wellbeing in different ways, so speak with your healthcare team before starting any new outdoor activities at this time of year.

"The cold can cause blood vessels to constrict or narrow, which decreases blood flow around the body, making it harder for insulin to work, potentially resulting in blood sugars rising," explains Neil. "It's important to test your blood sugar often and ensure you have your medication with you, and hypo treatment."

Drawing blood from frigid fingertips can be tricky, so wear gloves in cold conditions. Hand warmers or holding a warm drink help, but if you have peripheral neuropathy in your hands or fingers with any changes in sensation, check that they are suitable for you to use as it can be difficult to feel how hot things are. Dressing for the weather goes without saying – keeping warm will also help you to maintain regular blood flow and insulin sensitivity.

"Sunshine is limited at this time of year, so make the most of it and get outside for a dose of vitamin D"

Be prepared

Extremes in temperature can also cause equipment such as blood glucose monitors – finger prick, Flash or continuous – and insulin pens and pumps to malfunction, as well as causing insulin to freeze or spoil.

"It's advisable to be prepared," says Neil, who suggests keeping healthcare equipment in a weatherproof bag and considering packing spares in case it becomes adversely affected by cold, wind or rain.

"You don't have to prepare like you're about to climb Everest, unless of course you are about to go up a mountain, but take simple steps like telling people where you're going, packing a charged mobile phone, and warm and waterproof clothes, food, drink and any medications you need."

Boost your mood

Regular walking in the winter can help people keep ahead of seasonal affective disorder (SAD), a type of seasonal depression. "This is sometimes called the 'winter blues' as the symptoms are usually more apparent and severe during the winter," explains Neil, who adds that help is available through our local support groups and online forum.

"Going for a walk, whatever the distance or setting, gets you outdoors and, if you're lucky, a spot of winter sunshine. Teaming up with friends or joining a walking group also adds a great social aspect, which can add to the fun."

Those footsteps will contribute to the 150 hours a week of moderate exercise the NHS advises to maintain a healthy heart, build muscle strength, flexibility and mobility and avoid health complications. When the season starts to change, you'll have a spring in your step.

For more info, visit: diabetes.org.uk/bal-exercise

WINTER WELLNESS

The best intentions to eat healthily can wane when the cold weather and long nights begin to bite. But with the right information and a bit of planning, they needn't. These tips can help manage your weight and your diabetes:

Batch cook and freeze healthy meals

We've all succumbed to the temptation of a convenient but calorific takeaway on a cold winter's night. Help lessen their allure by batch cooking and freezing healthy meals to defrost after a long day.

Don't forget fibre

Getting enough fibre is particularly important with diabetes. Increasing your dietary fibre can also help manage weight. These foods are filling, and most have a lower glycemic index, which can help manage your appetite and have less of an effect on blood sugar.

Speak with your healthcare team

If you're changing your diet, contact your healthcare team first, especially if you treat your diabetes with insulin or other meds that increase the risk of hypos. Reducing carbohydrate and changes to your weight may mean your medication needs adjusting.

Check out our weekly meal plans

Our delicious, nutritious and budget-friendly weekly meal plans help keep your healthy eating on track. They are carb and calorie counted for convenience and contain at least five portions of fruit and veg a day and optimum levels of fibre.

Visit: diabetes.org.uk/bal-meal-plan

WHEN RAIN STOPS PLAY

Planning a walk is all well and good, but sometimes the British weather can have other ideas. It may be too cold, wet or windy – or all three – to stay safe while walking in the winter. But that needn't stop you from getting the physical and mental benefits of being active.

Our website is packed with tips and free resources to help everyone, whatever their mobility level, stay active indoors, including exercise videos, details of chair-based routines, activity journals and even a Moving More guide to interact with.

There's plenty more to raise pulse rates elsewhere online. Head to YouTube for the NHS Fitness Studio workouts or the 'We Are Undefeatable' webpage for inspiration.

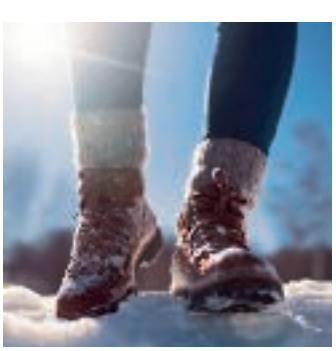
To get started, visit: diabetes.org.uk/bal-exercise

FEET FIRST — How cold can affect diabetic neuropathy (nerve damage)

All walkers know the importance of good foot care. With diabetes, it's crucial – high blood sugar levels can damage nerves and lead to diabetic neuropathy, which can cause pain and numbness in the feet and elsewhere.

If you have neuropathy, there are things you can do to keep walking through winter. Remember that the cold can worsen pain caused by neuropathy, so making sure your feet stay warm by wearing thicker socks and waterproof shoes, if necessary, can lower discomfort.

The feeling in the feet can be impaired by neuropathy, so it's vital to check for blisters and injuries regularly and deal with any issues quickly. If you're on a longer walk in colder weather, it's worth adding a stop at a café or pub to your route to allow you to warm up and check your feet. It's also a great excuse for refreshments!

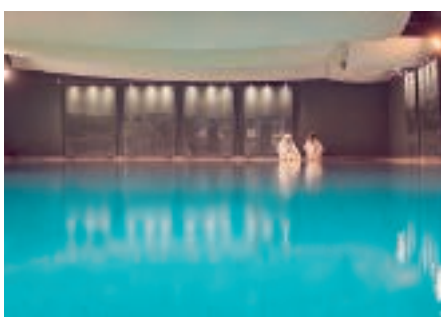


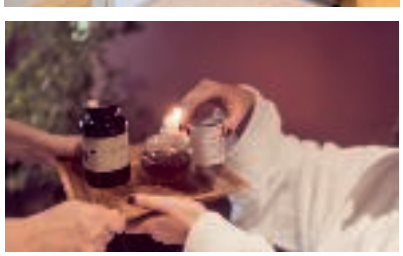
Words: **Robert Brown.** Photography: **Vinny Whiteman; iStock**

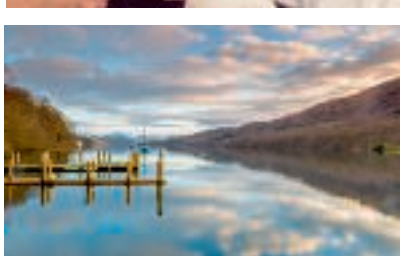
WIN

A tranquil break in an Area of Outstanding Natural Beauty

THE LAKE ESCAPE







Classic Lodges is offering readers the chance to win a luxury one-night stay for two at Lakeside Hotel & Spa, in the heart of the stunning Lake District. This fantastic prize includes a glass of Lanson champagne on arrival, a delicious three-course dinner and breakfast the following morning.

Lakeside is the latest addition to Classic Lodges' nationwide collection of hotels that all have their own charming character, whether that's a peaceful country getaway or city centre stay. Situated on the southern shore of Lake Windermere, Lakeside is the ideal setting to enjoy and explore all of the breath-taking natural beauty, and stunning panoramic views, that the Lake District is renowned for.

With restful rooms that all feature Classic Lodges' signature style and comfort, delicious dining inspired by the freshest locally sourced produce, and indulgent treatments at its luxury spa and pool, Lakeside 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 Lakeside Hotel & Spa, and includes a glass of Lanson Champagne each in the upon arrival. The prize also includes a three-course dinner and a full English or continental breakfast the following morning. The prize is valid for six months following the competition closing (excluding Christmas and New Year) 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.

CLASSIC LODGES

PRIZE

LUXURY HOTEL STAY

INCLUDES:

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

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

INSURANCE DONE DIFFERENTLY

Bluezone is reinventing life insurance for people with type 2 diabetes

Most people living with diabetes have had or will have difficulties when trying to arrange insurance cover as traditional processes are outdated, manual and cumbersome.

Bluezone founder, Dr Karan Mehta, was struck by the problems faced by his uncle, who lives with type 2 diabetes, when he tried to buy life insurance.

He was rejected several times, premiums were expensive, and the application process was long and complex. These issues have resulted in an ever-increasing proportion of the population not having life protection and this gap is continuing to increase.

Just as no two people living with diabetes are the same, at Bluezone we believe that every single policy should be be personalised to an individual's specific needs. Because every person is built differently.

Bluezone offers policies for the person, not the condition. Which means we'll offer a fully personalised, precise plan, plus insights and support to consistently improve health.

> **"Just as no two people living with diabetes are the same, at Bluezone, we believe that every single policy should be personalised"**

It brings together a team of doctors, AI scientists and insurance experts on a mission to improve the lives of those living with chronic health conditions by offering life insurance that empowers customers to live healthier lives.

A faster, seamless process

Bluezone uses advanced tech solutions to offer people with type 2 access to life insurance cover with wider pricing options and tailored cover based on your specific requirements.

We've removed lengthy form filling and mandatory medical appointments to make it quicker and easier to gain cover quickly online. This means we can offer a quote in minutes and give our customers active policies in days.

The team is hard at work building a life insurance policy for people with type 1 diabetes with the aim of launching this in 2024.

bluezone

Photography: iStock

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.

We meet some of our incredible research scientists and the people whose lives have been transformed by their work

FROM LAB TO LIFE

"It helped ease my initial hurt"

Peter Jackson, 66, from Belfast, took part in the NHS type 2 diabetes 'soups and shakes' remission programme. He says:

In April 2021, my GP phoned and warned me I was on the precipice of diabetes. That shocked me into paying attention. When she said there was a pilot weight loss scheme at my local hospital, I said, 'put me on it.'

She said, 'hold on, this will be pretty tough. I need you to think about it.'

I was told I'd need to follow an intensive diet for three months. The scheme was running across the UK, and I'd be aiming to lose 15% of my bodyweight by consuming 800 calories a day in soups and shakes.

Over the years I'd developed terrible eating habits. I felt I was now in a position to improve my health. This was a lifeline.

I spoke to my family, who were really encouraging. So, I called my doctor and said, 'I definitely want to do this.'

I saw a consultant, a dietitian and a psychologist, to assess my suitability for the scheme. I think that was to see if it was worth the NHS putting the investment into me.

The soups and shakes diet actually suited me down to the ground. It was simple to follow on a day-to-day basis.

There was a lot of support – I'd have regular meetings with a dietitian and the other people on the scheme.

Getting to know the group was important. We were pretty open with each other and discussed our fears and the positives and negatives of the programme. At one meeting, a mindfulness coach gave us tips on refocusing our minds in a different way.

I was given a blood pressure monitor and encouraged to keep a book charting my overall progress. All these things were great for keeping me on track.

After three months I'd lost 19% of my bodyweight and my blood sugars were in the 'normal' range.

The tough bit was when I had to go back to eating real food. That's when you can lose your way. At that point, we were given steps monitors and encouraged to be more physically active. I was never a great one for walking, but I soon noticed I wasn't

Prof. Taylor's life-changing discoveries have transformed the way we view and treat type 2 diabetes

Photography: **Charles McQuillan.** Words: **Gabriella Taylor and Louise Zecevic**

as out of breath walking uphill.

We were told at the start of the programme that even if we didn't gain remission, there were other benefits to losing weight. My knee pain from old rugby war wounds wasn't as agonising, and I reduced my blood pressure medication.

I'd hesitate to say I found it easy, but it was doable and my family were really supportive. I'm in awe of the NHS and the resources they put into the programme. It helped ease my initial hurt with myself about not paying attention to my health.

Suddenly I had all this support and it was all really positive. I feel very privileged to have been invited to take part.

"Answering important questions... drives me"

Professor Roy Taylor MBE, 71, from Newcastle Upon Tyne, is a pioneer in type 2 remission research, and a Professor of Medicine and Metabolism at Newcastle University. He says:

I became interested in type 2 diabetes research by listening to my patients. People often describe the moment of being diagnosed as though it was a hammer blow. The impact on self-esteem, having a disease label, needing to take tablets, and long waits in doctor's waiting rooms are all huge.

The central question was, what is causing type 2 diabetes and could we possibly ever get rid of it?

I published the 'Twin Cycle Hypothesis' in 2008 to tie together all our research findings and those of other scientists. Diabetes UK had the courage to fund the necessary research to test the hypothesis. At the time, experts described it as farfetched.

I calculated that we needed to achieve 15 kg weight loss, and had to devise a diet to do this rapidly. Over the years I had learned from my own patients that the main difficulties people had in losing weight was the feeling of hunger and the day-to-day burden of decisions.

The soups and shakes approach was likely to minimise major hunger problems, and the only choice during the short period of weight loss was which flavour of packet. The average weight loss in the study was just over 15 kg. To my astonishment, diabetes disappeared and we could measure the underlying reasons for this.

That was an excellent start, but we still needed to show that the diabetes would stay away after a return to normal eating. Our second major study found that six months after reversing all the underlying mechanisms to normal, the glucose control remained rock solid. A team of independent psychologists documented the high satisfaction with the outcome, with participants reporting that it was easier than they had expected.

The scene was set for a study to see if long term remission from type 2 diabetes could be achieved in routine primary care. Diabetes UK suggested that I collaborated on this with my long-standing colleague in Glasgow, Professor Mike Lean. The aim of the DiRECT study was to lose 15 kgs and then to minimise weight regain.

We were able to announce the results of the DiRECT study in late 2017. At one year, almost half were free of diabetes and off all their glucose-lowering treatment. At five years, those who had maintained their weight loss were still in remission, and in the whole group serious medical problems were halved. There was also a major gain in wellbeing for those in remission.

As a result, the 'soups and shakes' approach to losing weight and going into remission of type 2 diabetes has been rolled out in the NHS. Our latest study shows that people with type 2 who have lower bodyweights can also go into remission with weight loss.

Answering important questions about health is what drives me. Doctors must remember that care of the individual is just so important.

"I never thought I'd feel that weight off my shoulders"

Rachel Brown, 37, from Cumbernauld, was diagnosed with type 1 diabetes in 1997. She says:

My mum's brother sadly died of complications of type 1 not long after I was diagnosed. He'd experienced diabetes in a different era and had to manage it with limited support.

Mum didn't want that to happen to me. She immersed herself in diabetes, learning about the latest treatments and developments. I think we've always had quite a positive take on the condition because we knew what it had been like in the past.

In the early years, I'd experience typical hypo symptoms of shaking, sweating and feeling clammy. After university, I mentioned at my annual diabetes reviews that my hypos seemed a bit all over the place and my symptoms had changed – the shaking had stopped and I felt really nauseous.

At the advice of my diabetes team, I changed my insulin regimen. Things seemed okay for a while, but then I had three severe hypos within six months where I had a seizure and needed the assistance of a paramedic.

The severe hypos always happened at night. My partner works offshore, so when he was away I'd let my parents know what time I was setting my alarm for in the morning. If they hadn't heard from me within an hour, they'd come and check on me. Everybody was unsettled. It wasn't a case of 'if' there was another bad hypo, it was, 'when'.

My dad felt quite helpless and started researching things, including islet transplants, where pancreas cells from a donor are transplanted into you, so you can make some insulin. They seemed to be very niche and specialist. I just wanted us to be mum, dad and daughter again.

I tried different insulin regimens and started using a pump. My team were surprised when, 12 months later, we hadn't seen any improvement.

I'm generally a positive person, but it had really got to me at that point. I was exhausted and couldn't help thinking of the worst-case scenario – what if I just didn't wake up from a hypo?

My consultant asked if I'd thought about islet transplants. She'd spoken to Shareen Forbes at the University of Edinburgh, who thought I'd be a brilliant candidate.

When I said, 'no, I'm not that bad,' the consultant reminded me I'd had three hospital admissions, had needed to surrender my driving licence, was functioning on very little sleep and wasn't able to sleep alone.

I still thought I couldn't be one of the worst off. But I'd had the beginnings of retinopathy, my kidney function was not great, I had issues with my heart and recurring infections. It felt personal, like my body had let me down.

There was trepidation leading up to the procedure, but the team really managed my expectations, stressing that coming off insulin was not what we were aiming for. We wanted to reduce my insulin requirements and relax the pressure on my organs.

I had two transplants, in May and August 2021. Research has shown it's better to have them done quickly, ideally within six months of each other.

One of the happiest days of my life was after the second op, when the surgeon said I could come off insulin.

I went for a run – running is quite freeing anyway – but to have no pump, no Lucozade, nothing, was incredible. I never thought I'd feel that weight off my shoulders.

Today, I have one insulin injection a day. I feel as good as cured. I'm 'Rachel 2.0'.

I'm so grateful to Shareen and to my donors. I hope islet transplants become a more viable treatment in the future. I'd come to the end of hope; to have that feeling gone is incredible.

Photography: **Julie Howden**

"It's not just the recipient of an islet transplant whose life is transformed"

Professor Shareen Forbes, from Edinburgh, is Lead Physician for the Islet Transplant Programme Scotland. She says:

Being able to improve the lives of people with diabetes is really important to me. What's incredible is that it's not just the recipient of an islet transplant whose life is transformed. It's striking how much their family's life improves as they go from being very dependent to possibly reapplying for their drivers licence, taking on more responsibility at work, or being able to do more exercise and just enjoy life again, because the transplants have given them much more stable blood glucose levels.

However, islet transplantation rarely produces insulin independence. Most people still need insulin injections post-transplant. Another problem is that islet transplants from two donors are usually required. Donor pancreases are a limited resource, so it's a poor use of a scarce resource.

My lab started to think about ways in which we could improve the process, so that we might only need to use one donor pancreas per recipient. We collaborated with the Scottish National Blood Transfusion Service and people who were experts in cell therapy to co-transplant islets with other supporting cells and therapeutic agents. We're aiming to improve how they embed into the liver, where they're transplanted.

Our work has shown that various cell therapies and approaches can help them embed and survive. That means more effective blood glucose management with fewer islets.

We've shown these to be quite effective, but we need to further develop them so they can be approved by regulators and brought into practice.

Islet transplants are very much a multidisciplinary approach. They involve a huge team of co-ordinators, surgeons, diabetologists, Diabetes Specialist Nurses and radiologists.

And there's no 'typical' patient. There are a lot of people like Rachel who have been incredibly careful with their diabetes management over the years. Rachel really tried, but when she lost her hypo awareness, it seemed to begin a downward spiral. To hear what a difference the transplants have made to her life is really encouraging for the whole team.

Islet transplants are still evolving. We're exploring simultaneously transplanting islets and kidneys in people with type 1. That would be particularly useful for people who aren't well enough to receive a simultaneous pancreas/kidney transplant. And if we can help people to achieve insulin independence post-transplant, that would really change how our patients live.

Another goal is to develop stem cell transplants that could be given without needing to take anti-rejection drugs, which can have serious side-effects. That would make it a much lower risk procedure and then we could think about offering this therapy to children.

Funding from Diabetes UK was instrumental in setting me on the path to academia, and the charity has played a key role in funding and setting up a UK islet transplant consortium.

Most importantly, we couldn't do any of this incredible work without the gift our donor families and the donors themselves give to our patients.

"His diabetes, which was our whole life, quickly became nothing"

Emma Matthews, 51, and her son, Jack, 23, are from Leigh-On-Sea, Essex. Jack's life was transformed by a diagnosis of neonatal diabetes. Emma says:

Jack was only a few weeks old when he was diagnosed with type 1 diabetes. He also has severe learning disabilities and developmental delay, and we didn't know whether he was going to survive from one day to the next because his diabetes was so unstable. It was a living nightmare.

When Jack was five, my mother-in-law was given a newspaper article from someone at her church about a boy in Rotterdam who took part in a study looking at neonatal genetic testing with Professor Andrew Hattersley and his research team.

When I read it I thought, 'that's Jack'. I found the research paper online and after reading it I became even more convinced he had neonatal diabetes and not type 1.

Jack had previously had genetic testing, but they were looking for something specific which he didn't have. I tracked down Prof. Hattersley's email address and explained Jack's case. It turned out one of the researchers he was working with – Professor Julian Hamilton Shields – was a genetic consultant who Jack had seen before, and they still had Jack's blood. I pretty much hunted these people down and didn't give them much choice not to talk to me.

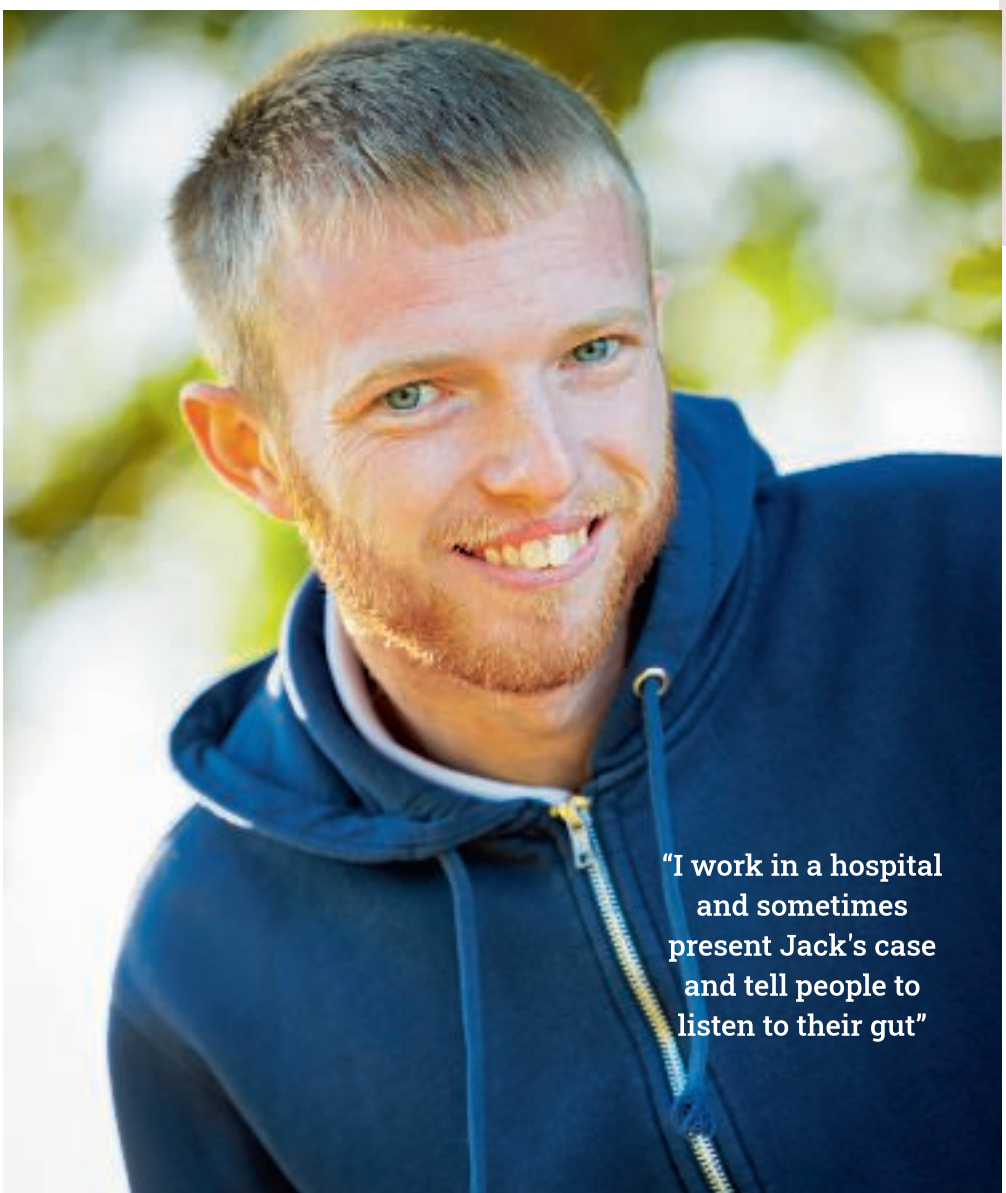
Prof. Hattersley thought Jack has the gene for neonatal diabetes, so we went to the Bristol Royal Hospital for Children where Jack was taken off insulin and transitioned to tablets. Within days, Jack's blood sugars completely stabilised. It was a miracle. Without that newspaper article, I don't think Jack would still be alive.

Jack's diabetes ended up becoming the least of our worries. The developmental delay, his special needs and epilepsy became the focus instead. His diabetes, which was our whole life, very quickly became nothing. His sleep improving made him so much happier.

Jack is awesome. He's one of the funniest people I've ever met and is one of those people that walks into a room and lights it up. He's got loads of friends, he goes to a day centre, goes litter picking and he works at a local farm. He will give anything a go. Next year, he's going into independent living in the community.

I'll always talk to other parents of children with rarer types of diabetes if someone from the monogenic diabetes team asks me to share our experiences. I work in a hospital and sometimes present Jack's case and tell people to listen to their gut. When I took the newspaper article to Jack's paediatrician and to my GP, they dismissed me as a mum clutching at straws. They said, 'he's got a diagnosis, this is the treatment, we know it's not very pleasant,' and sent me on my way.

I tracked Prof. Hattersley down and our life changed because of it. A mother's instinct is a powerful thing.



MONOGENIC DIABETES

Monogenic diabetes is caused by a mutation in a single gene which is passed on from an affected parent to their child. There are two main types - maturity-onset diabetes of the young (MODY), and neonatal.

"You really feel you're making a difference"

Professor Maggie Shepherd, from Devon, is a Consultant Nurse in monogenic diabetes and was recently awarded the Aster Guardians Global Nurse of the year award. She says:

People often think nursing is always working in a ward environment, but there's such a diversity in nursing roles.

In 1987, I was appointed as the first Diabetes Specialist Nurse at Greenwich District Hospital. Eight years later, I moved to Devon, where I joined the monogenic diabetes research team.

Professor Andrew Hattersley had just started as a consultant at the Royal Devon and was looking for a diabetes research nurse to collect samples from families who were thought to potentially have a genetic type of diabetes.

I was tasked with taking detailed family histories, drawing family trees, and finding out clinical details such as age of diagnosis and current treatment and taking blood samples to bring back to the Exeter molecular genetics team to undertake genetic testing.

At that point, there was only one gene that had previously been identified within families that caused a raised blood glucose, and that was the glucokinase gene. Since 1997 changes in over 30 different genes have been identified that cause monogenic diabetes. I think what's kept me fascinated with work in this field is that you never know what's around the corner. New genes are being found all the time.

Raising awareness about these rarer types of diabetes has been a huge issue and priority for us. Back in 2002, I set up a national genetic diabetes nurse project with the aim of training Diabetes Specialist Nurses across the UK to learn more about monogenic diabetes.

That ran for just under 20 years and worked well, but there were still regions of the UK that weren't covered by a genetic diabetes nurse. So, in the last two years, I've been working with the NHS England Diabetes programme to run a virtual introductory two-day training course in monogenic diabetes. We've now got 95% of trusts in England with a named diabetes consultant or specialist nurse trained in monogenic diabetes. We provide training and resources that are available to anyone, so patients can access genetic testing and get the right information and treatment for their condition. We also provide support to trusts if we're seeing that their patients aren't being referred for genetic testing.

We estimate there's around 16,000 patients with monogenic diabetes in the UK, but we've only got about 6,000 of those with a confirmed diagnosis. It's really important for the right diagnosis to be given so patients can get the best treatment and care, with many being better treated with sulphonylurea tablets rather than insulin injections.

Some patients diagnosed with neonatal diabetes – diabetes diagnosed within the first six months of life – can have learning difficulties, but getting the right diagnosis and treatment can improve neurological function as well as the huge fluctuations in blood sugar.

For me, to be a little part of that story has been amazing. You really feel you're making a difference to patient care, and that's what it's all about.

It's important to encourage people to come into nursing and show that you can undertake different roles. For me, that was combining a specialist role in monogenic diabetes with research and education to improve patient care.

If you're wondering if you have monogenic diabetes, you can find more information at: www.diabetesgenes.org

Photography: **Damian Prestidge; Adj Brown**

DIABETES AND SEX

We talk to Dr Sharron Hinchliff, Professor of Psychology and Health at the University of Sheffield, who has run projects like 'Age of Love Project' and 'Sex and You', about how to enjoy a happy, healthy sex life

Dr Sharron Hinchliff

Sex can be a subject people avoid talking about, but it's a completely normal and healthy part of being human. However, there may be times when living with diabetes can disrupt your sex life.

As sex is a physical activity, it could cause your blood sugar levels to drop. It's worth checking them before sex and having hypo treatment nearby, just in case. If you've had hypos during sex in the past, you may feel anxious and apprehensive. Talking to your partner about potential hypos means they can support you.

Diabetes complications like neuropathy can also have an impact, disrupting the blood flow to your sexual organs and decreasing sensitivity. In women, it may be harder to feel aroused, and men may struggle with erectile dysfunction. Having diabetes can also increase your risk of urinary tract infections (UTIs), thrush and vaginal dryness.

Your sex drive

Diabetes can be tiring and may take a toll on your mental wellbeing. When you're feeling low, you might find that your sex drive follows suit.

Sharron says: "It's important to remember there's no magic number of times a week you have to adhere to in order to feel you have a 'normal' sex drive. You'll know what's right for you and your partner. But if you're finding that your libido is dwindling and you're having less sex than you're used to, or you'd want to, then you might want to look at the reasons why."

And it's not just diabetes that can impact your sex drive. Everyday things like work stress, anxiety, or even alcohol can affect it too. And other things like depression, certain medications or the menopause can also come into play.

Safe sex

Anyone can contract a sexually transmitted infection (STI) no matter their age. A recent report by the Local Government Association found that the number of STIs recorded among over-65s increased by 20% between 2017 and 2019.

Even if you aren't worried about pregnancy, it's important to use protection during sex, especially if you're with a new partner and their sexual history is not known. You can get tested by going to your doctor or a sexual health clinic near you.

Thrush isn't necessarily a sexually transmitted infection but can be passed on during sex. Thrush is a fungal

Words: **Gabriella Taylor.** Photography: **iStock**

infection; both men and women can get it, but it's more common in women. And, if you live with diabetes, high blood sugar can make you more susceptible.

You can help avoid thrush by keeping your blood sugars as close to your target range as possible, keeping your genitals clean (steer clear from scented products) and avoiding tight underwear or trousers. Thrush can also make sex painful.

What's the effect of tech?

If you use technology – like a pump – to help manage your diabetes, you may find that it can get in the way during sex. It can feel frustrating not knowing whether to leave it on or take it off, to explain to your partner what it is, or you may worry about accidentally pulling it out. It's up to you whether you remove it or not.

Taking your pump off may mean you're less likely to have a hypo. Leaving your pump on means your sugars aren't going to get too high, but on the other hand, they may drop too low. Don't shy away from talking with your healthcare team about concerns like these. They may ease your worries and help you find a way forward.

Sex as you get older

The National Institute on Aging (NIH) says that, "many older couples find greater satisfaction in their sex lives than they did when they were younger. They may have fewer distractions, more time and privacy and no worries about getting pregnant. They also may be better able to express what they want and need, which can offer an opportunity for greater intimacy and connection."

There can, of course, be challenges as we age. According to research from the University of Sheffield, hormonal changes due to menopause can mean the vagina can take longer to lubricate and vaginal tissues become thinner. This can make penetrative sexual activity painful and can affect your sexual desire, orgasms can be less intense or take longer to reach.

Things like lack of sleep, hot flushes and brain fog can be stressful, and you may find sex is the last thing on your mind. Medications like vaginal oestrogen can be used to treat vaginal dryness and irritation. Hormone replacement therapy (HRT) can also help relieve some menopausal symptoms. Speak with your GP for personalised advice.

"If your libido is dwindling and you're having less sex than you're used to or want to, then you might want to look at the reasons why"

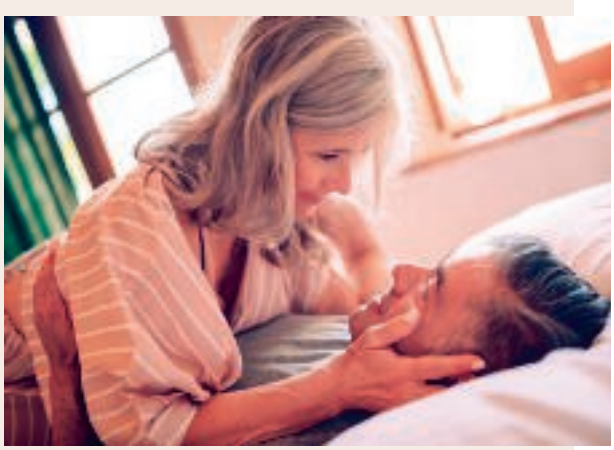
For men, the University of Sheffield says, "you may find you can't get an erection or maintain one for very long. There may be a reduction in semen at ejaculation and the chances of experiencing non-ejaculatory orgasms (dry orgasms) increases with age." Occasional erectile dysfunction is normal, but if it happens often it may be time to seek help. There are medications that can help, but talk with your doctor before you start taking any new medication to make sure it's suitable for you.

Research has found that older adults make lifestyle changes to try and resolve sexual issues by losing weight and stopping drinking alcohol. These health and lifestyle changes can have a positive affect on sexual function and put us in a stronger position to cope with sexual difficulties.

For more information, visit: diabetes.org.uk/bal-sex

DR SHARRON HINCHLIFF'S TIPS

- Maintaining physical contact can be rewarding, so being intimate without holding any expectations as to where it will lead.
- Sex doesn't have to mean purely penetrative sex – things like massages or cuddling can feel pleasurable and intimate too.
- Affection and respect can be a huge turn-on.
- Vagina pH-friendly lube can help.
- Sexual desire can be responsive, so changing your view of sexual desire as only spontaneous can make a big difference in the bedroom.
- Some common medications have sexual side effects and may be cause a sexual issue. For example, some antidepressants can reduce the ability to experience sexual pleasure and reach orgasm. It may be worth talking with your GP if you think that's the case.



'I WAS ADAMANT THIS WAS MY WAY FORWARD'

Andy Barham, 62, who lives with type 2 diabetes, explains how a penile implant changed his life

Andy Barham says he was lucky. When he was diagnosed with prostate cancer in 2012, it was in the early stages. After having his prostate removed, he was cancer-free.

"They got everything," he says. "But one of the nerves necessary for an erection was damaged, and the erectile dysfunction that I thought would be temporary after the operation became permanent.

"There wasn't a moment when someone said, 'you'll never get another natural erection'. It became obvious over a period of months," he says. "I was clutching at straws, trying different treatments. I feel I was put through a lot of unnecessary turmoil. Tablets were never going to be effective for me. Even the treatment that did work – injecting a medication into my penis that took at least 10 minutes to take effect – wasn't sustainable.

"It put a strain on my marriage. My wife, Sue, was very supportive, but I put pressure on myself. We knew we could see it through, but sex is a big part of any relationship."

Andy says that during these years, as he searched for a solution, depression hit him 'like a baseball bat'.

"I couldn't see an end to the erectile dysfunction problems."

A widespread issue

Erectile Dysfunction can be physical or psychological in nature. Some causes can include smoking, stress, diabetes, cardiovascular disease, and some men are effected after treatment for prostate cancer, as Andy explains. It can also be the side effect of certain medications.

Penile implants are either inflatable or malleable and are manipulated by the person to produce an effective erection. Every year, approximately 20,000 men worldwide reclaim their sexual relationships with this kind of device.

> "I'm as back to normal as I could be. The spontaneity is there"

Andy says: "When I researched penile implants on the internet, I found horror stories, but I was adamant this was my way forward."

After a one-night stay in hospital and three weeks of recovery, Andy was delighted to find that the hour-long procedure had been a success.

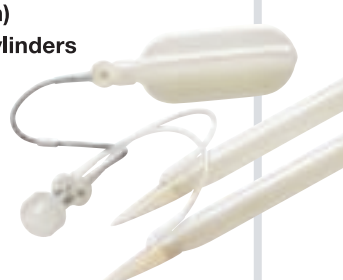
"I'm as back to normal as I could be. The spontaneity is there," he says. "If anyone is thinking about a penile implant, there's lots of evidence-backed information on the Coloplast website.

"There are so many reasons for erectile dysfunction. I live with diabetes, which is one of them. Finding something that works has given me back the missing part of the jigsaw."

The Coloplast Titan Touch® inflatable penile prosthesis is a self-contained, fluid-filled systems consisting of:

- a reservoir (placed in the abdomen)
- two penile cylinders
- a pump

Coloplast Titan inflatable penile prostheses are rated highly by patients.



NEXT STEPS

- Interested in speaking with a Coloplast Patient Educator? Go to www.erectile-dysfunction-solutions.uk/get-the-right-support/
- Alternatively, speak with Clare, our Men's Health Nurse Specialist, on 07703 477315 for further information.
- Scan the QR code to find out more about Coloplast's penile implants.

Coloplast

CROSSWORD

WIN! Hayloft patio shrub collection and fertiliser WORTH £59

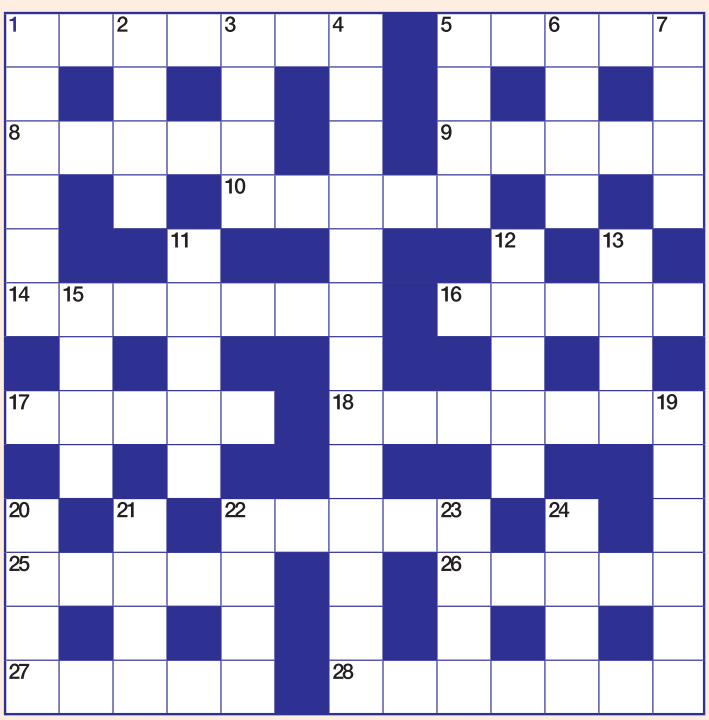
YOUR CHANCE TO WIN A FRAGRANT PATIO SHRUB COLLECTION AND FERTILISER FROM HAYLOFT PLANTS. PRIZE INCLUDES:

■ **Philadelphus Little White Love in 9cm pot** ■ **Deutzia Raspberry Sundae in 9cm pot**
■ **Forsythia Mini Gold in 9cm pot** ■ **1kg bag of plant fertiliser**

Ideal for planting in containers on a patio, this collection of beautiful, compact shrubs will fill your garden with sweet perfume. Small in stature, these plants will not exceed a height and spread of 1.2m, making them easy to grow and maintain, perfect for creating low-maintenance displays. Forsythia Mini Gold flowers in March and April, Philadelphus Little White Love flowers from May to July, and Deutzia Raspberry Sundae flowers from May to July. Plus, get the very best out of your shrubs with our exclusive and unique blend of plant food, providing your plants with all the essential nutrients they need in order to thrive. **TO ENTER: Send the grid to the Balance address — see T&Cs, below.**

ACROSS

1 Relating to heart (7)
5 Hardwood tree with small nuts (5)
8 Statement established as true (5)
9 Angler's keepnet (5)
10 Tree with peeling white bark (5)
14 Earthenware cooking dish (7)
16 Italian city, capital of Piedmont region (5)
17 Clanking noise made by an engine (5)
18 Hoist, crane (7)
22 Slow-moving nocturnal primate of Asia (5)
25 Employment; custom (5)
26 Mound of stones piled up as a memorial (5)
27 First appearance (5)
28 Musical note neither sharp nor flat (7)



Name_____

Address_____

_____ Postcode_____

DOWN

1 Item of neckwear (6)
2 Wading bird (4)
3 Metrical foot (4)
4 On the Origin of Species author (7,6)
5 Brandenburg Concertos composer, J.S. - - - (4)
6 Fencing sword (4)
7 Body of vessel (4)
11 Robert the - - -, 14th-century King of Scotland (5)
12 Unit of liquid measure equal to two pints (5)
13 Layer of cartilage between vertebrae (4)
15 Sea eagle (4)
19 Edible part of nut (6)
20 Coagulated milk, used in making cheese (4)
21 Substance such as sugar or starch in foods (abbrev) (4)
22 Period before Easter (4)
23 Rabbit's tail (4)
24 Coffin stand (4)

SOLUTION for last issue's crossword:

ACROSS: 1 Algol, **6** Tantalus, **7** Rite, **9** Ace, **10** Toga, **12** Urbane, **13** Teacup, **15** Dorsal, **16** Burden, **18** Raga, **20** Moa, **21** Exit, **22** Audience, **23** Flock. **DOWN: 1** All-rounder, **2** Oboe, **3** Invertebrate, **4** Mantra, **5** Bung, **6** Trace element, **8** Tuber, **11** Alpenstock, **14** Codex, **16** Static, **19** Alum, **21** Earl.

FLYING SOLO

Our experts share their advice on living independently with diabetes as you get older

Managing diabetes as you age, particularly if you live alone, can bring challenges. Diabetes can have many health implications, but there are practical steps you can take to improve your chances of living a safe, independent life, such as having the right support and encouragement – from a partner, friend or someone from your healthcare team.

Addressing ageism

A study by University College London in 2019, published in The Lancet Public Health journal, found that ageism may be linked with poorer health in older people in England. Notably, 45% of participants who reported age discrimination also reported discrimination based on other personal characteristics, such as sex and physical disability.

Over one-third of people living with diabetes in the UK are over 65 but we don't know enough about how to help people with the condition age well.

Our Diabetes Research Steering Groups, made up of people living with diabetes, researchers, and healthcare professionals, have identified the most urgent research gaps which need answering to improve care for older people living with diabetes.

We've made recommendations to the research community, setting out the path of future research on diabetes in older people. For more info on our research priorities to improve care for older people living with diabetes, visit: **diabetes.org.uk/bal-research**

Knowledge is power

- People who enrol on a diabetes education course often feel more confident about managing their diabetes, making healthy food choices and looking after themselves. These are friendly and informal – you can learn face to face or online and ask to attend however long you've had diabetes.
- If you're supporting someone with diabetes, you can usually go along. Ask your healthcare team about free courses in your area.
- Our Learning Zone is an award-winning diabetes self-management tool. Designed to complement traditional diabetes education courses, it combines expert advice and tips from people who have been there too: **diabetes.org.uk/bal-zone**

Understanding sick day rules

It's important to know how to manage your diabetes when you're unwell. Part of your body's defence mechanism for fighting illness and infection is to release glucose into the bloodstream. This can raise your blood sugar to dangerously high levels, even if you're off your food or eating less than usual. Meanwhile, feeling or being sick or having diarrhoea can make your blood sugar levels drop because you're not absorbing food as usual.

When you're unwell, insulin must never be stopped. But doses might need adjusting. If you manage your diabetes with tablets or non-insulin injections, you may need to stop these when you're not well. Speak with your healthcare team as soon as you feel unwell and make a plan together.

Blood sugar levels will need to be checked at least every 2–4 hours, including during the night. Drink plenty of water or sugar-free drinks to avoid dehydration, and eat little and often.

If you have type 1, it's important to check for ketones when you're unwell. Some people with type 2 who take certain medications will also need to do this – if you have been asked to do this, make sure you have a testing kit. If ketones are present, it's a sign that something isn't right – contact your diabetes team urgently.

Feeling lonely

According to Age UK, more than 2 million people in England over the age of 75 live alone, and more than a million older people say they go over a month without speaking to a friend, neighbour or family member.

People can become socially isolated for a variety of reasons. Whatever the cause, it's shockingly easy to be left feeling alone and vulnerable, which can lead to depression and a serious decline in physical health and wellbeing.

One way of finding a sense of connection is by doing activities and hobbies with other people. Doing things we enjoy – and doing them with people who validate us – makes us feel good and feel like we're part of something with a purpose.

It can make a huge difference to know that someone will miss us if we don't turn up to that activity or that someone who will celebrate our achievements and progress.

Our local support groups offer people living with diabetes a chance to meet and share experiences with others. They are all run by volunteers and typically meet on a monthly basis, often with a speaker on a topic like diet or being physically active.

Age UK has advice and resources for people experiencing loneliness at: **www.ageuk.org.uk/information-advice/health-wellbeing/loneliness/**

Social prescribing is a way of finding groups and activities in your area that can help you feel less lonely. See page 26 for more info.

"People who enrol on a diabetes education course often feel more confident about managing their diabetes, making healthy food choices and looking after themselves"

Words: **Louise Zecevic** Photography: **Centre for Ageing Better; iStock; Neale Haynes**

Staying active

Being physically active can help with balance, circulation, managing blood sugars and lowering cholesterol and blood pressure. It can also help with coordination and reduce the risk of falls. Our website has resources for people of all ages and abilities to do at home: **diabetes.org.uk/bal-exercise**

If you have issues with physical mobility, there are several ways to help incorporate activity:

- Try regular 30-minute slots of walking or wheeling a wheelchair.
- Stretching activities, such as yoga, pilates and tai chi, can help improve range of motion.
- Swimming or aqua aerobics provides a good cardiovascular workout, strengthens and tones muscles, and improves flexibility. The feeling of weightlessness can boost your wellbeing.
- Upper body exercises can help build strength. Our website has lots of resources to help you to move more while sitting, including a video showing simple arm movements to do while sitting or standing.

Photography: **Andy Wilson**

Eating well

Following a healthy, balanced diet and maintaining a healthy weight can help you manage your blood sugars.

If you live alone, it can be difficult to shop for just yourself. Many supermarket packs are designed for families or groups of people, which could lead to food waste and make it harder to get portion sizes right.

There's no one-size-fits-all way of eating, but we've put together a nutritionally balanced meal plan to help.

It's designed for people who cook for one, to save you time, money and food waste. It's calorie and carbohydrate counted, and contains at least five portions of fruit and veg per day: **diabetes.org.uk/bal-meal-plan**

Tapping into technology

Continuous Glucose Monitors (CGM) and Flash glucose monitors have transformed the way many people manage their diabetes and have been proven to improve people's quality of life. There is data to suggest it could be effective at supporting older people with diabetes and memory problems and their carers.

It's usually possible to set alarms that alert you to low or high glucose levels. With some systems, high and low glucose alarms can be received on the mobile wphones of family members and carers.

Under current criteria, older people are likely to be eligible for some technology, but there have been reports of resistance from healthcare professionals, as well as concern that tech is not always considered appropriate, despite evidence of its effectiveness. We're calling for research to establish how CGM is best used in older people with diabetes.

JOHN'S STORY

John Jennings, 94, from Norwich, lives independently and has had type 2 diabetes for 26 years. He says:

I was diagnosed around the time my wife died. My GP said I should find an activity I'd want to do again and again. He suggested things like golf and rambling, but I wasn't keen. When he mentioned dancing, my ears pricked up.

I discovered my local leisure centre held ceroc jive classes a few evenings a week. Then I got into salsa, which I loved, and made lots of friends. I'd been depressed because of my wife's death and the classes were very therapeutic. I also met my partner through dancing. We live separately, but we see each other at least once a week.

I'm fortunate to have very helpful neighbours. It's important to have people you can depend on.

Unfortunately I've not been able to dance recently, because eye problems mean I've had to stop driving. I get terribly tired as well, because I have thyroid and anaemia problems.

Before the pandemic, I was going to the gym a few times a week. When I stopped driving, I couldn't get to the gym any more, so I bought an indoor rower. I also walk every day. After a walk, I feel better in myself, better in my mood and better in my general attitude.

I keep active on the internet and have some lovely friends in my village. There are fewer things I can attend now that I've stopped driving, but there's a club for us older folks that meets once a fortnight in the pub and an excellent local history group. I think staying active and doing what you can to understand your diabetes are key to staying independent as you get older.

COPING WITH GRIEF

Just like navigating life with diabetes, there's no such thing as 'normal' when it comes to the grieving process. Mr Marc Hekster, Consultant Clinical Psychologist at the Summit Clinic in North London and Associate Fellow of the British Psychological Society, gives his advice on how to cope and move forward

We all experience loss at some point in our lives. But when you live with diabetes, grief can make self-care quite difficult at times. It might be challenging to keep managing a demanding health condition during emotional turmoil, but one of the benefits you may find of managing your blood sugar levels is that it can improve your mood, and give you a clearer mind and more energy.

How does grief show up?

Grief looks different for everyone.

"Grief is a completely normal process. It's a process of change, adaptation or adjustment to loss. It's vital in dealing with a loss," says Mr Hekster. "You can grieve even if someone hasn't died – if someone has become ill or diagnosed with a condition. Grief can also provide relief through expressing your feelings.

"If it's a normal state of grief, the person grieving can talk to a friend rather than a therapist straight away, which can help.

"You might talk to a friend about something you're grieving without realising it's related to grief – like being diagnosed with a medical condition, for example. Talking about your feelings can be a really helpful thing to do."

The practicalities

When you lose someone, you may take on the role of organiser. It can be a lot to deal with, and it's important to not try and do too much at once. If you can, try to seek help so it's not all on you, and set small targets you can achieve.

Mr Hekster says: "Grief is such a private and personal process. People who are grieving may talk about doing ritualistic things like writing, visiting a grave and spending time reflecting, or saying a prayer if you're religious.

"Ritualising is really helpful as it brings the grief process to life and enables people to feel emotional.

> **"Grief looks different for everyone. It is a process of change, adaptation or adjustment to loss"**

"What ritual you take part in depends on where you're at in your grief journey and how you express yourself."

The gov.uk website has information on what to do after someone dies. It provides information and a step-by-step guide on things like registering a death, understanding pensions and taxes and dealing with someone's estate: **www.gov.uk/after-a-death**

Grief comes in different forms

"Grief is a unique experience," says Mr Hekster. "Nobody should be critical of how you grieve. But if a loved one is concerned about you, do listen to their worries and consider if you need to seek some professional help."

For many, losing a pet can feel like losing a close family member. Pets are part of our lives for years and provide companionship, love and emotional support, so when they pass, it can trigger a great sadness or a hole in our lives. The loss of a pet is very personal to people, and that grief shouldn't be dismissed. The Blue Cross has a free bereavement service to support you so no one has to deal with losing a pet alone. You can contact them by visiting: **www.bluecross.org.uk/pet-bereavement-and-pet-loss**

You may experience grief in another form, like an estrangement from a loved one. Adult estrangement charity Stand Alone says 1 in 5 families in the UK will be affected by this. It can feel like a death for many people and trigger feelings of isolation and depression. Stand Alone has resources and support groups for people going through estrangement. Find out more at: **www.standalone.org.uk**

THE STAGES OF GRIEF

"Recognising these can be helpful," says Mr Hekster. "One of the worst things when you're grieving is feeling like there's something wrong with you."

Denial

You may feel numb or carry on like nothing happened. You could momentarily forget your loss, and many people feel the presence of someone who has died.

Anger

Death can feel like an injustice. You may feel angry at the person you have lost or anger at yourself. If the person's death leaves you with a lot of responsibility or practical things to sort out, you might feel frustrated. Perhaps there were things you wanted to say to the person who has died, and now you're struggling with those emotions.

Bargaining

This is when people start making promises or deals with themselves or a religious figure in the hope of bringing someone back. Some people find that they keep going back over the past and ask lots of 'what if' questions, wishing they could change things.

Depression

The sadness of grief can feel all-encompassing. When you feel consistently sad over a long period of time, you may be dealing with depression. Mr Hekster says: "Grief and depression are often confused, but they're actually relatively unrelated. You can have depression, which has nothing to do with grief. And you can be grieving and feel sad, not necessarily depressed."

You may find you're struggling to sleep, and you have a lack of energy or loss of appetite. Mr Hekster says: "If a person is feeling very upset after someone has died or has had a health diagnosis and the feeling carries on extensively, they should seek help through their GP who may signpost to a counsellor. Sometimes antidepressant medication will help as well."

Acceptance

It can be frustrating when you're told that 'time heals all wounds'. Often, people who are grieving will say that they learn to live with the grief but that doesn't mean that the sadness and longing for that person goes away.

Supporting others

It can be difficult supporting a person who's lost someone they love. Many people worry about saying the wrong thing, but it's really important to let a grieving person know you're there to talk and support them if they need it.

Mr Hekster says: "Awkwardness around death is usually because people don't like talking about uncomfortable things. But the person who's grieving often does want to talk, and feels relieved when someone asks how they are. It opens an avenue for conversation, which is very important. It's OK to be grieving, and it's important not to be frightened of the process. It's also OK to sit with someone who's grieving and not talk if that's what they want. You can't always say the right thing, but being there with them can help a lot."

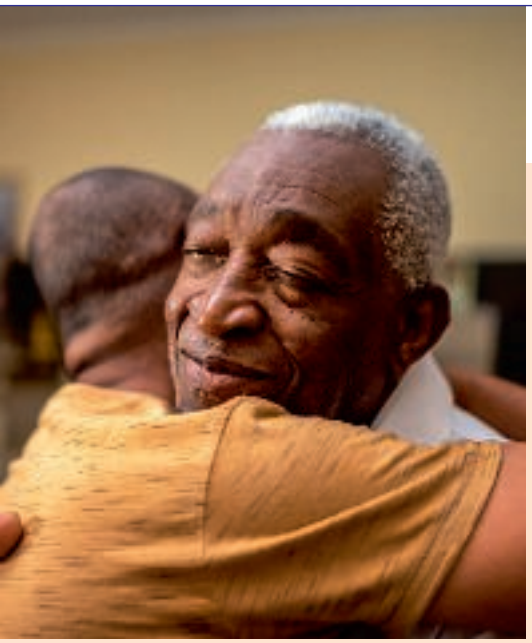
Managing your diabetes

Trying to manage diabetes while going through the grieving process can be incredibly difficult. Focus on smaller, achievable goals and talk to your diabetes team to explain what's happening in your life and see if there's anything they can do to support you.

Fatigue is a common side effect of grief, but staying physically active can help. A simple activity like gardening

TIP

Mind has lots of resources with advice and support if you're grieving. **Visit: www.mind.org.uk/information-support/guides-to-support-and-services/bereavement/support-and-self-care/**



While a lot of people use these stages of grief to make sense of their feelings and behaviour, it's important to remember there's no 'right' way to grieve and no such thing as a normal response to bereavement, grief or loss. The NHS has a range of useful resources. Vist: **www.nhs.uk/mental-health/feelings-symptoms-behaviours/feelings-and-symptoms/grief-bereavement-loss**

will get you outside in the fresh air, and planting seeds can symbolise hope for the future. Practising relaxation exercises like yoga or meditation may also help you feel calmer. Try to limit alcohol or caffeine if you're feeling particularly anxious.

If you're struggling, try to let go of really high expectations on things like blood test results and set smaller, more realistic goals. Talk with your healthcare team about potentially relaxing your targets a bit or reducing how many times you check your blood sugars each day.

Talk to your loved ones about how you're feeling or to other people with diabetes – our online support forum is a great place with loads of people who are ready to chat or just listen: **diabetes.org.uk/bal-forum**

Words: **Gabriella Taylor;** Photography: **iStock**

ELLIE'S STORY

Ellie Huckle, 26, from North London, lives with type 1 diabetes. Her mum, Mary, died in June from secondary breast cancer, aged 57

My mum was incredible. She was so kind, loving and tenacious. We called her our "mama bear". She had a wonderful sense of humour, and we would laugh so much. She was a personal trainer, and she was fiery but also sweet. It's really difficult having to navigate life without her. She was our everything. I haven't managed to go 24 hours without crying yet, but that's OK.

I went back to work five weeks after losing her, and I was glad to be able to get to a place of normality. But it's a 'new normal' and that's hard. I'm managing and leaning on my family and friends for support. The online diabetes community has been really kind to me too and raised money for MET UP UK, a charity my mum worked closely with.

When you've lost a loved one, self-care can really take a backseat and this can include your diabetes. Life as you know it will change, and this means normal routines can get disrupted. I've struggled a lot with diabetes, and my mum was a huge part of my reason to keep going. When I lost her, I was really worried that my foot would come off the gas completely.

My mum was the only thing that mattered to me, and I was about to lose my entire world, which made diabetes feel really small. But diabetes is still important no matter what. I try to remind myself that my mum just wanted me to be OK and to look after my diabetes.

Managing your diabetes and looking after yourself run in parallel, so it doesn't just mean taking insulin and checking your blood sugar. It also means remembering to eat, to drink water, to shower – even if you feel like you don't want to. It can make you feel angry that you have something that requires 24/7 monitoring and a lot of your attention when all you are thinking about is your loved one, but don't be harsh on yourself.

Tell your diabetes team what's going on because they'll be able to support you. There will be days where you don't manage to look after diabetes at all, and it's OK to have a wobble and allow yourself to feel whatever you need to feel.

Grief is heavy, it's all-consuming, it's complex, and it's not linear. When you accept that you've got a lifetime to go, it can feel daunting. The grief will stay, and so will diabetes, and you will learn that the two will coexist.

There are two things that help me. I love talking about my mum, and I want to keep telling her story and continue her advocacy work for secondary breast cancer research. She handled her diagnosis with such dignity and strength for eight years, beating the odds by miles.

Grief comes in waves. Some days you're OK and others you're not, but as long as you can identify these moments, feel them, and allow them to pass, then it's all normal and part of grieving. One thing I've realised is that joy and grief can exist in parallel. You can laugh again when you feel ready. Just because you've laughed doesn't mean you're not grieving – you're learning to live alongside the grief.

Grief has no timeline, and you are not obliged to 'move on'. It will occupy a space in your life, perhaps forever. But you'll be able to accept it one day and remember that grief is the price we pay for love.

Premium Gold Berry Crackers, set of 8, £14.99

Santa Dressing The Tree, pack of 10 cards, £4.50

Robin Luxe Fabric Decoration, £8.99

THE GIFT THAT KEEPS ON GIVING

Our online shop has Christmas wrapped up. And every penny spent helps support our cause. **This year, we're giving our members a 10% discount*.** Use the code BAL10 at the checkout **Visit: diabetes.org.uk/bal-shop**

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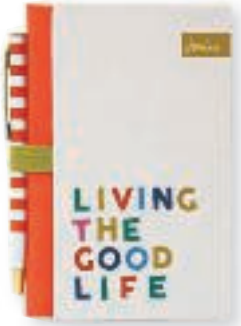

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GIMME 5

When you're feeling inspired, it can be easier to reach your 5-a-day than you might think. Our experts have developed these delicious recipes to give you a healthy share of fruit, veg and flavour

Roasted red pepper soup

Serves 4 | Prep: 15 mins | Cook: 1 hr 30 mins

GLUTEN-FREE | VEGAN

- 100g no-need-to-soak red lentils
- 4 red peppers (about 600g in total) cored, deseeded and roughly chopped
- 1 medium-sized carrot, peeled and roughly chopped
- 2 red onions, peeled and roughly chopped
- 4 medium sticks celery, thinly sliced, plus extra for garnish
- 1.36kg fresh ripe plum tomatoes, quartered
- 3 whole large garlic cloves
- Low-calorie cooking spray (about 2 pumps)
- 1 reduced-salt vegetable stock cube, crumbled into 800ml water

1 Preheat the oven to 200°C/180°C fan/gas 6. Cook the lentils in a pan of boiling water for 15 mins. Drain and set aside.

2 Spread the peppers, carrots, onion, celery and tomatoes in a single layer on a large baking tray. Scatter over the garlic cloves and spray with a little low-calorie cooking spray (about 2 pumps). Roast for 1 hour until charred. Pop the garlic from its papery skins and discard the skins.

3 Tip the vegetable mixture into a large saucepan and add the stock cube and 800ml boiling water. Bring to the boil and simmer for 10 mins.

4 Remove from the heat and blitz using a stick blender or food processor. Sieve (if liked) and return to the saucepan and season to taste.

5 Stir in the lentils and heat through gently. Serve garnished with extra chopped celery and celery leaves.

PER SERVING 838g

CARBS	CALS
21.8g	138

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
8.3g	<0.5g	<0.1g	0.14g	7.7g	6.4g

7 portions of fruit and veg

Roasted veg couscous with turkey meatballs and smoky tomato sauce

Serves 4 | Prep: 20-25 mins | Cook: 1 hr 5 mins

DAIRY-FREE

- 1 courgette (about 300g), trimmed and cut into chunks
- 1 red pepper, cored, deseeded and cut into chunks
- 1 yellow pepper, deseeded and cut into chunks
- 1tsp fennel seeds, lightly crushed
- 2 sprigs fresh rosemary
- Low-calorie cooking spray (about 4 pumps)
- 600g 2% fat turkey mince
- 4tsp Moroccan-style seasoning
- 4tbsp fresh chopped coriander, plus extra to garnish
- 1 large onion, peeled and diced
- 2 sticks celery, diced
- 1 fennel bulb, trimmed and cut into chunks
- 2 large garlic cloves, crushed
- 1½ tsp smoked paprika
- 400g can chopped tomatoes
- 150g cherry tomatoes
- 650ml boiling water
- 150g dried couscous
- Finely grated zest and juice of 1 small lemon

1 Preheat the oven to 220°C/200°C fan /gas 7. Arrange the courgettes and pepper in a single layer on a baking tray. Sprinkle with crushed fennel seeds and rosemary and spray with low-calorie cooking spray (2 pumps). Roast for 30 mins.

2 Meanwhile, place the turkey mince into a bowl with 3tsp Moroccan-style seasoning and half the coriander and mix to combine. Season with freshly ground black pepper. Shape into 20 equal-sized balls.

3 Spray a large non-stick frying pan with low-calorie cooking spray (2 pumps) and fry the meatballs for 4–5 mins, shaking the pan frequently until browned all over. Remove to a plate and return the frying pan to the heat. Add the onion, celery, fennel and garlic and cook over a low heat, stirring occasionally for 10 mins until softened. Add the remaining seasoning and smoked paprika and cook for 1 min. Tip in the chopped tomatoes, cherry tomatoes and 400ml boiling water. Bring to the boil. Add the meatballs, pushing them below the surface of the sauce. Simmer for 20 mins until the sauce has thickened and the meatballs are cooked through.

4 While the meatballs are cooking, place the couscous into a small bowl and cover with the remaining water. Cover with a plate and leave to stand for at least 10 mins. Once the water has been absorbed, fluff up with a fork and stir in the lemon zest and juice. Season with freshly ground black pepper.

5 Toss the roasted vegetables with the couscous and serve with the meatballs and smoky tomato sauce.

PER SERVING 777g

CARBS	CALS
45.9g	464

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
12.7g	3.6g	0.9g	1.18g	57.1g	10.1.g

4 portions of fruit and veg

COOK'S TIP

Cho cho is a Jamaican fruit similar to marrow or cooked cucumber. It is available in some major supermarkets and specialist grocery stores. If you can't find it, swap for diced courgette or marrow.

Caribbean ital stew

Serves 6 | Prep: 15 mins | Cook: 40 mins

GLUTEN-FREE | VEGAN

- 200ml lighter coconut milk
- 400ml water
- 3 large garlic cloves, peeled and crushed
- 1 bunch spring onions (about 100g), trimmed and sliced
- 2 large tomatoes (about 300g), chopped
- 4 sprigs fresh thyme
- 250g diced pumpkin or butternut squash
- 1 large carrot, peeled and roughly chopped
- ½ tsp turmeric
- 1 large ripe plantain (about 265g), peeled and sliced
- 1 red scotch bonnet chilli
- 200ml unsweetened plant milk of your choice fortified with calcium
- 1 medium-sized sweet potato (about 300g), peeled and diced
- 400g can black beans, rinsed and drained
- 1 cho cho (see cook's tip) or 1 small courgette, trimmed and roughly chopped
- Large handful fresh chopped coriander

1 Pour the coconut milk into a large saucepan and add 400ml water. Bring to the boil. Add the garlic, spring onion, tomatoes and thyme, simmer uncovered for 5 mins.

2 Stir in the pumpkin or butternut squash, carrots, turmeric and half the plantain. If you like your food spicy, prick the chilli all over with the tip of a knife – if not, leave whole and add to the coconut mixture. Season with freshly ground black pepper and bring to the boil. Cover and simmer for 20 mins until all the vegetables are tender.

3 Stir in the soya milk, sweet potato, black beans, cho cho or courgette and remaining plantain. Cover and simmer for 10-15 mins until tender. Serve scattered with the fresh coriander.

PER SERVING 425g

CARBS	CALS
34.9g	225

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
16.2g	3.8g	2.1g	0.15g	7.5g	10.3g

2.5 portions of fruit and veg

Creamy tarragon chicken

Serves 4 | Prep: 15-20 mins | Cook: 40 mins

GLUTEN-FREE

FOR THE TARRAGON CHICKEN

- 4 skinless chicken breasts, approx 150g each
- Low-calorie cooking spray (about 2 pumps)
- 1 large red onion, peeled and thinly sliced
- 2 large garlic cloves, peeled and crushed
- 300g chestnut mushrooms, thinly sliced
- 1 reduced-salt chicken stock cube
- 400ml boiling water
- 1tbsp wholegrain mustard
- 2tbsp fresh tarragon leaves, finely chopped
- 200g 50% reduced-fat garlic and herb cream cheese

FOR THE ZESTY GREENS

- 250g tenderstem broccoli
- 150g spring greens, trimmed and shredded changed amount
- 150g frozen soya beans
- Finely grated zest and juice of 1 small lemon
- 1tbsp Flora Lighter (optional)

1 Season the chicken breast with freshly ground black pepper. Spray a large non-stick frying pan with low-calorie cooking spray (2 pumps) and place over a high heat. Add the onion, garlic and 4tbsp water and cook for 5 mins, stirring occasionally, until the onion has softened and begun to colour slightly and the water has cooked off.

2 Push the onions to the side of the pan and add the chicken. Cook over a lower heat for 3 mins until lightly browned. Turn the chicken over and scatter over the mushrooms, cover and cook for a further 5 mins.

3 Sprinkle over the stock cube, pour over 250ml boiling water and stir in the mustard until well combined. Simmer, uncovered over the lowest heat possible for 10 mins.

4 Scatter over the tarragon. Cover and simmer for a further 10 mins. Stir in the cream cheese and heat gently until the sauce is thickened and reduced.

5 Meanwhile, cook the broccoli in boiling water for 2 mins. Stir in the spring greens and soya beans. Bring back to the boil and cook for a further 2–3 mins. Drain well and toss with the lemon zest and juice and Flora (if using).

6 Garnish with a few extra tarragon leaves and serve with the zesty greens.

PER SERVING 530g, excludes Flora

CARBS	CALS
6.3g	347

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
4.3g	12.1g	4.9g	1.05g	49.5g	7.7g

2 portions of fruit and veg

Indian-spiced omelette

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

VEGETARIAN | DAIRY-FREE

- Low-calorie cooking spray (about 2 pumps)
- 1 garlic clove, crushed
- ½ green chilli, deseeded and finely chopped
- 2 spring onions, trimmed and sliced
- 8 cherry tomatoes, halved
- 200g cooked skin-on new potatoes, diced
- 75g thawed frozen peas
- 50g baby spinach leaves
- 1tsp medium curry powder
- ½ tsp garam masala
- 3 medium eggs, lightly beaten
- Small handful fresh coriander

1 Spray a non-stick frying pan with 2 pumps of low-calorie cooking spray. Heat gently and add the garlic, chilli, spring onions, cherry tomatoes and potatoes and cook for 2–3 mins. Stir in the peas and spinach and cook for a further 2 mins until warmed through and the spinach has wilted. Sprinkle over the curry powder and garam masala and cook stirring for a further 1 min.

2 Lightly beat the eggs and pour into the pan then cook over a low heat, shaking the pan slightly for 2 mins until the egg is set on the underneath. Grill for 2 mins until the top of the omelette is golden brown. Scatter over the coriander and serve with a green salad or tomato and onion salad.

PER SERVING 314g, excludes serving suggestion

CARBS	CALS
21.6g	250

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
4.8g	9.4g	2.5g	0.43g	16.6g	6.3g

1 portion of fruit and veg

No-churn cherry and chocolate frozen yogurt

Serves 6 | Prep: 10 mins | Cook: None

VEGETARIAN | GLUTEN-FREE

- Finely grated zest and juice of 1 lemon
- 450g frozen pitted red cherries
- 450g 0% fat Greek yogurt
- 3tbsp sweetener
- 6tbsp (25g) 70% dark chocolate shavings

1 Place the lemon zest and juice into a food processor with the frozen cherries and Greek yogurt and whizz until smooth and thick. Stir in the sweetener. Spoon into a shallow freezer-proof container and freeze for 2 hrs (for soft scoop) or 4 hrs for fully frozen. Serve in scoops and scattered with the chocolate shavings.

2 If freezing for longer, remove from the freezer 30 mins before serving.

PER SERVING 198g

CARBS	CALS
17.1g	114

Sugars	Fat	Sat Fat	Salt	Protein	Fibre
16.3g	2.1g	1.2g	0.17g	6.1g	1.4g

1 portion of fruit and veg

ULTRA-PROCESSED FOODS EXPLAINED

Our expert nutritionist, Stephanie Kudzin, examines the hype behind the headlines

Ultra-processed foods (UPF) are really topical after new studies found that people who consume lots of mass-produced foods have a higher risk of suffering a heart attack and having dangerously high blood pressure.

This is concerning, but the limitations and challenges of the findings mean they should be treated with caution.

For example, some foods like wholegrain bread are classified as ultra-processed, but they contain vitamins and minerals like B vitamins, iron and fibre that benefit health.

However, some processed foods, such as processed meat, have been linked to cancer, particularly bowel cancer.

The government advises to reduce your intake of red and processed meat, like bacon, sausages, beef and lamb.

What qualifies?

There's no consistent definition for 'processed food'. It could refer to any food that has undertaken any process, such as chopping, freezing, canning or cooking.

As a general rule, processed foods refer to foods with other foods or ingredients added.

Why do foods need to be processed?

Foods are processed for all sorts of reasons. One reason is to make them edible or safe to eat. Pasteurising cow's milk and cheese are good examples of this.

Processing is also used to increase a food's shelf life or to change the number of vitamins or minerals it contains, for example, by adding calcium to plant-based milks.

Of course, processing some foods can make them taste better – think creamy ice cream or melt-in-your-mouth chocolate. The lure of many processed foods is that they can be convenient when we're short on time.

It has been estimated that more than half of the calories an average person in the UK consumes are from foods that would be classified as UPF. That's hardly surprising. These foods are more readily available to us, especially when we're on the go, and can be cheaper than whole foods. And there's nothing wrong with some ultra-processed foods in a healthy, balanced diet.

Can food processing affect health?

Studies suggest there is an association between consuming ultra-processed foods and health conditions such as type 2 diabetes, gestational diabetes, high blood pressure, overweight and obesity, cardiovascular disease, and depression.

However, there is not enough evidence indicating why this is. It is important to recognise there are also other risk factors for these conditions like age, ethnicity, and genetics.

Nonetheless, due to growing evidence that a diet high in ultra-processed foods is linked to poorer health outcomes, academics in Brazil behind the NOVA classification recommend choosing natural or minimally processed foods and freshly made dishes.

This involves choosing milk and water over shop-bought milkshakes and fizzy drinks. Freshly made dishes are preferable to things that don't need preparation, as are home-made puddings to shop-bought ones.

More research is needed

Currently, it's hard to know whether it is something within processed foods that is causing poor health outcomes, or whether eating a diet high in these foods suggests an overall lifestyle linked to poorer health. When it comes to healthy eating, it's generally more important to consider the nutritional value of foods, rather than simply focusing on whether or not they are processed.

For some products, processing will increase the content of sugar, salt, fat or other ingredients that will make them less healthy than their unprocessed equivalent.

For example, a processed oat-based cereal bar is less healthy than wholegrain plain porridge oats because it has sugar and fat added and has undergone some

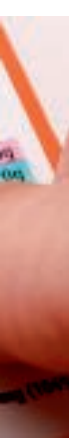
WHAT IS AN ULTRA-PROCESSED FOOD?

- The term 'ultra-processed foods' (UPFs) comes from the NOVA food classification system, developed by researchers at the University of São Paulo, Brazil.
- NOVA places foods into four groups, from unprocessed to ultra-processed, although it may not always be clear which is which when you're in the shops. One hallmark of ultra-processed foods is 'sophisticated and attractive packaging' and aggressive marketing to children and adults. Often, they are ready to eat with no preparation.
- According to NOVA, ultra-processed foods typically have five or more ingredients and include ingredients "not commonly used in culinary preparations". However, we feel this is an unhelpful simplification. It doesn't recognise the nutritional benefit of some processed and ultra-processed foods in a person's diet. Not all processed foods are high in fat, salt and sugar, and some processed foods, due to the nutrients they contain, support a healthy, balanced diet. For example, baked beans are classified as ultra-processed but are low in fat and a source of fibre. Half a large tin of baked beans also counts towards your five-a-day.
- Ultra-processed foods can be beneficial to health, they can be affordable and can provide important nutrients. For example, plant-based milks would be classified as ultra-processed because they can have vitamins and minerals added to make up for what is naturally lacking, such as vitamin B12 and calcium. This can help people who don't drink cow's milk meet their nutrient requirements. Some foods that would be classified as UPF, such as vegetable-based sauces, can help make low-cost, nutritious home-cooked meals by adding vegetables and beans, which are good sources of fibre and protein. They will also make the meal go further.
- Be aware that some UPFs are high in sugar, saturated fat and salt. Too many of these are not good for long-term health, so people with and without diabetes are advised to reduce their intake.

"Ultra-processed foods can be beneficial to health, they can be affordable, and provide important nutrients"

Photography: iStock

When you live with diabetes, it's important to think about the overall balance of your diet and lifestyle. Choose nutrient-rich foods such as wholegrains, fruit and vegetables, pulses, fish, nuts, seeds and unsweetened dairy foods. Reduce red and processed meat, refined carbohydrates like white rice and white bread, and sugar-sweetened foods and drinks.



form of food processing.

But it's important that people do not avoid all foods that include more than five ingredients, as many of these products are key to achieving a balanced diet for good health.

In some cases, processed or ultra-processed foods may be beneficial to people who may have more restricted diets to support them to meet their nutritional requirements. For example, for those following gluten-free or vegan diets.

For more on on healthy eating, visit: diabetes.org.uk/bal-healthy-eating

Common ultra-processed foods in the UK include:

- Bread.
- Pre-packaged meals.
- Some breakfast cereals.
- Sausages and other reconstituted meat products.
- Chocolate, sweets and biscuits.
- Salty snacks, including crisps.

FOCUS ON FIBRE

Diets high in ultra-processed foods are typically low in fruits, vegetables and fibre. It's recommended that we eat 30g of fibre a day, but most of us don't consume enough. Increasing the amount of fibre in your diet can help you manage your blood sugar levels. It also helps keep your gut healthy and can reduce your blood cholesterol, lowering your risk of cardiovascular disease. If you are trying to maintain a healthy weight, eating more fibre can also be beneficial as these foods are filling.

Fibre is in all forms of plant foods – fruits, vegetables, wholegrains, beans and pulses, nuts and seeds – plus tinned, fresh and frozen varieties all count.

Here's how to increase your fibre intake:

- Choose wholegrain, seeded or multi-grain bread – these are higher in fibre than white varieties. Brown bread is not as high in fibre as wholegrain.
- Instead of white pasta or rice, choose the brown/ wholewheat type.
- Go for beans, pulses and lentils – buy tinned to save on cooking time and add to casseroles, soups, salads and curries.
- Choose oat-based, bran or lower-sugar wholegrain breakfast cereals.
- Buy a selection of interesting and seasonal fruit and vegetables and check out our recipes on page 52 for tasty, nutritious dishes to help you reach your 5-a-day.
- Couscous and quinoa, which are wholegrains, are a great source of fibre. Add to leafy green salads or in place of rice for variety.

RAISE A GLASS

Our expert nutritionist, Stephanie Kudzin, shares our evidence-based advice on drinking and diabetes

It's the season to be merry. Whether that's with a trip to the pub, a work festive 'do' or dinner with family, having the occasional drink or two is all part of life for many people.

If that's something you enjoy, having diabetes shouldn't get in the way of this, unless you have been advised to avoid alcohol on medical grounds.

But it's important to know how drinking alcohol can affect your diabetes and your overall health.

The NHS advises that there is no safe drinking level for alcohol, but drinking less than 14 units of alcohol a week (for both men and women) is considered low risk. It advises spreading any drinking over three or more days, with several drink-free days and no 'bingeing'.

If you have diabetes, you should be aware of the other health risks around drinking alcohol. Excessive alcohol, or heavy drinking, can lead to raised blood pressure. Alcohol can lead to certain cancers and heart disease and worsen neuropathy (nerve damage). It can also prevent you from sleeping properly.

Alcohol and low blood sugars

- Drinking alcohol can make your blood sugar drop too low and cause hypos, especially if you've been drinking a lot of alcohol or have an empty stomach. If you manage your diabetes with insulin or medications like sulphonylureas, you're at risk of having hypos and drinking alcohol can add to this risk.
- This is because alcohol reduces your body's ability to recover when blood sugar levels are dropping.
- Usually, the liver stores extra glucose, which is released back into the blood when needed, such as when blood sugar levels drop. But alcohol stands in the way of the liver's ability to do this effectively. If you're not sure whether your medication can cause hypos or if they're affected by alcohol, speak to your healthcare team.
- If you drink a lot or on an empty stomach, you're even more likely to have a hypo. Eating a meal with long-acting carbohydrates can help reduce hypos. But the risk of having a hypo doesn't go away after you stop drinking – it increases and can last up to 24 hours.
- With continuous glucose monitors (CGM) and Flash glucose monitors, you can set alarms to alert you if your blood sugar levels go too low or too high. These can help you take action quickly if your levels go too low when you've been drinking.

■ There are different things you can do to help avoid having hypos when you're drinking or the day after, including eating carbs and regular blood sugar checks.
■ It's important to always carry hypo treatments with you and always wear some medical ID. It's not uncommon for some people to mistake having a hypo for being drunk, so you should also make sure that whoever you're with knows you have diabetes and knows how to help with a hypo if you need them to.
■ If you use CGM or Flash, consider sharing your data with someone else, like a family member or friend, so that they can help track your sugar levels.

"Unless you've been advised otherwise having diabetes shouldn't get in the way of drinking alcohol on occasion"

Alcohol and carbohydrates

■ Most alcoholic drinks can cause your blood sugar levels to rise as they contain added sugar. If you're carb counting, drinking can make it a lot more tricky. While a lot of alcoholic drinks contain carbs, you might not need to take your usual mealtime amount of insulin to cover them. That's because you're more likely to get hypos.
■ It all depends on what you drink, how much you drink, and what else you're doing while you're drinking – like eating or dancing. It's best to talk with your healthcare team and get their advice.

Under the influence

■ It takes an average adult around an hour to process one unit of alcohol so that there's none left in their bloodstream, although this varies from person to person. And the more you drink, the longer it takes – so, six units of alcohol would take the average person six hours to process.
■ You might hear about things to help you feel more sober, like drinking coffee, but as coffee is a stimulant, drinking it after consuming alcohol will only make you feel more awake. Nothing sobers you up but time.

Types of drinks

■ People often stick to drinks with a lower alcohol sugar content to avoid high blood sugar levels. But there's no 'best' alcoholic drink for people with diabetes. It's a good idea to check the label of your drink or use a carb-counting app if you can.
■ **Cocktails:** Beware of sugar levels, particularly if they contain syrups.
■ **Low-sugar beers or cider, sometimes called 'diabetic drinks':** Avoid these. They might have less sugar, but there's more alcohol in them.
■ **Low-alcohol wines:** These should be avoided – they often have more sugar than usual ones. If you do choose these, just stick to a glass or two. Try to limit drinks with a lot of sugar, such as sweet sherries, sweet wines and liqueurs.
■ Have diet or sugar-free mixers with spirits – if a friend gets a drink for you, make it clear what you need.
■ Some drinks like beers, ales and ciders contain carbs and will initially increase your blood sugar levels. Spirits, dry wines and prosecco, not so much, so these may be a better bet if you are concerned about the carbs in alcohol.
■ Having a glass of water between alcoholic drinks is a good way of pacing yourself and avoiding the dehydrating effects of alcohol. It will also give you more time to see the impact that alcohol is having on your blood sugar levels.

"Ways to help avoid hypos include eating carbs and regular blood sugar checks"

The morning after

■ If you end up having one too many, drinking a pint of water before you go to bed will help keep you hydrated. Drinking water the next day can also help with hangover symptoms.

■ Always have breakfast – it will help you manage your blood sugar. If you can't face food or have been sick, drink as many fluids as possible, including some sugary (non-diet) drinks if your blood sugar levels are low.

■ Check your levels regularly the next day. The symptoms of having a hypo are similar to feelings of a hangover, so you need to know if you're having one. No matter how awful you feel, you need to treat a hypo straight away. Don't ignore it.

■ If you take insulin, you might need to change your dose, depending on your blood sugar levels. Talk with your healthcare team about what you should be doing.

Party season – our tips for safer drinking:

■ Be prepared. Have your hypo treatments ready, and check your blood sugar level before you start drinking.

■ Check your blood sugar levels regularly throughout the night. Tell any new friends you have diabetes and what to do if you have a hypo.

■ Don't drink on an empty stomach. Eating foods that have carbs in them like a sandwich before a night out will help avoid a hypo.

■ Eating isn't 'cheating'. Make sure you carry snacks with you in case of lows, and eat before you go to bed.

■ Stick to diet mixers.

■ Dancing can make your blood sugar levels drop. Walking from venue to venue will also have an effect.

■ Drink plenty of water when you get home, and check your blood sugar levels.

■ If you have a hypo, treat it before you fall asleep.

Mocktails

■ If you're substituting alcoholic drinks for mocktails, it's important to be aware that these often contain high amounts of sugar, which can affect your blood sugar levels.

■ Mocktails are often made with fruit juice, which is a source of 'free' sugars. We recommend that people living with diabetes should have no more than 150ml of fruit juice a day.

What is an alcohol unit?

■ Alcohol units are a simple way of understanding the quantity of pure alcohol in a drink.

■ One unit is 10ml (millilitres) or 8g (grams) of pure alcohol. As alcoholic drinks come in different strengths and sizes, units are a useful way to tell how strong your drink is.

■ A pint of average strength beer (4% 'alcohol by volume', or ABV) has about two units, while a single measure (25ml) of typical spirits is one unit.

■ What does this actually mean when you're in the pub or having dinner with a glass of wine at home? It means you shouldn't drink more than six medium glasses of wine or six pints of lager a week.

■ For more info, visit: diabetes.org.uk/bal-alcohol

■ For more on on alcohol, health and wellbeing, visit: drinkaware.co.uk

Water works!

■ Your body is made up of nearly two-thirds water, so it makes sense to drink enough every day to stay hydrated and healthy.

■ Join our Water Only challenge: diabetes.org.uk/bal-water-only

Jules Barcroft counts online peer support – particularly @GBDocInfo on X – as her biggest source of help

LET'S TALK ABOUT...

Psychological support

When I was diagnosed with diabetes at 18, I was told I was 'too old' to have type 1, so I was put on tablets to treat type 2, advised not to eat any sugar, and sent on my way.

But my blood sugars never settled down. After I had a miscarriage when I was 25, I was told I had type 1 diabetes. I had a quick session with a specialist nurse who taught me how to inject myself, but that was it. I was numb, really, dealing with my loss, so I wasn't able to engage with my diabetes at that point.

I struggled for many years. I didn't look after my diabetes at all and often skipped my insulin because I was worried about weight gain – which I now recognise as 'diabulimia'.

In 2015, I was diagnosed with Multiple Sclerosis (MS). It's made me disabled and had a massive impact on my life, but it's a visible one. Diabetes isn't visible, yet it requires action 24/7. I don't think many people understand the relentlessness of it.

Getting my MS diagnosis was a long and difficult process, but when it happened, I was offered a lot of support. Crucially, I was referred to a psychologist to help me come to terms with having a lifelong condition. I'd had so little support with my diabetes that the contrast was stark.

Talking to the psychologist was incredibly helpful. We discussed learning to accept the condition and the grieving process you have to go through. She encouraged helpful things, like writing journals and blogs.

I know with most things diabetes-related, it can be a postcode lottery. But more mental health support is needed. I think I wouldn't have spent six or seven years not taking my insulin properly if it had all been explained a bit better and I was supported to accept it a bit more.

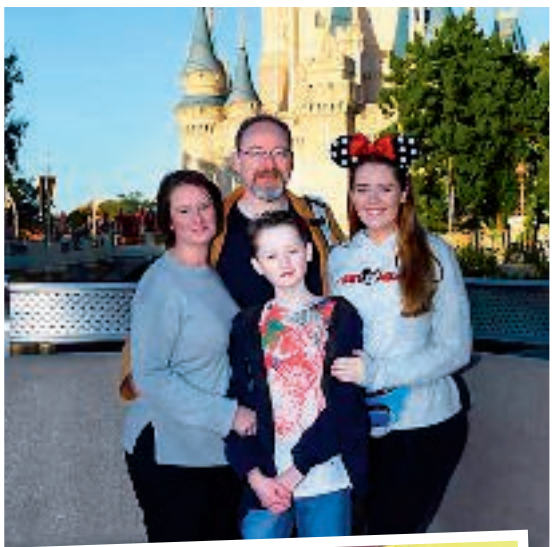
It wasn't until I went on the insulin pump in 2011 that I got any sort of education about carb counting, and the biggest thing that's helped with my diabetes has been online peer support.

When I asked for advice about getting my pump, so many people offered really vital support. It wasn't just about the functionality of the pump, it was what it means to live with one – the fact that every time I buy a pretty dress with pockets, I have to put a hole in it to accommodate my tech. You only really get that sort of insight from living with the condition.

Peer support has helped me engage with my condition. Without it, I don't think I'd have used my pump properly or taken insulin correctly. I think it's saved my life, really. I'm now part of a Diabetes Online Community – #GBDoc – which is managed by a team of community volunteers.

I'm very accepting of my conditions now, and my focus is on what I can do to help others who may be struggling. More mental health support is needed for people with diabetes. It shouldn't be up to ordinary people to have to fill in the gaps.

For more info on diabulimia, visit: diabetes.org.uk/bal-diabulimia
For miscarriage information and support, visit: tommys.org



WE ARE FAMILY

Robert and his daughter, Isabel, talk about how their family has pulled together to navigate three type 1 diagnoses

Robert Darbyshire, 51, from Stockport says:

I used to hide from my diabetes. I'd do what I needed to do, but if my wife or my mum tried to raise it, I'd say, 'it's my problem, I'll deal with it.' I wasn't secretive about it, but it was not a topic for discussion at all.

I was diagnosed in late 1985, and my management was very hit-and-miss for the first 10 years or so. I had quite a lot of really bad hypos and would often wake up in hospital.

When my daughter, Isabel, was diagnosed, I realised I couldn't hate or ignore diabetes anymore. It's a part of both of us, and I wanted to get to know it better.

After 30 years of living with diabetes, I started listening and learned an awful lot very quickly. There were many things I didn't know. I realised that I had to work with it. I tried to reassure Isabel that it was not the end of something but maybe the beginning of something else. I wanted her to do all the things she dreamed of in her life, just as I have. Everything I have achieved has been a bit more difficult than it would have been without diabetes. Isabel being diagnosed changed my mindset and my ambitions – I wanted to help and support people with diabetes.

When my son, Matthew, was diagnosed, they knew us well on the ward. I said to the consultant, 'I've brought you another one,' and I didn't get the smile I thought I deserved for that. I'd already done a lot of work getting to know diabetes better, but Matthew being diagnosed opened other doors, like getting involved with Diabetes UK. I wonder if, had my children not been diagnosed, would I have changed as much as I did?

I've done the DAFNE course, and the best part was meeting other people like me and sharing our experiences. I learned so much and afterwards felt so much better about myself. I felt proud of myself and even prouder of my children as I saw what they had to cope with every day.

I've loved being part of the Diabetes Lived Experience Advisory Committee. It's a growing group of people living with diabetes from massively different backgrounds and experiences. We meet once a quarter, and I think our most important function is to help Diabetes UK ensure they're heading in the right

Family bond: Diabetes changed the family dynamics with Robert learning more about the condition and Isabel and Matthew growing closer

"I felt like everything was going to be OK because Dad's got diabetes, and he was my superhero"

direction. I really enjoy it. We only get so many days on earth, and my favourites are the ones I give to people with diabetes.

Isabel Darbyshire, 20, from Glasgow, says:

I'd been at my grandma's for the weekend, drinking loads of orange juice, weeing lots, and I just wasn't myself. When my dad came to pick me up, he did a finger prick test. My blood sugars were really high, so we went to the hospital.

The car journey was quite traumatic. I knew that I was going to be diagnosed with diabetes. It was the strangest experience, knowing that my life was going to change forever. There were quite a few tears, but it was actually lovely being in the car with Dad. We chatted, and he told me it wasn't the end of the world.

In hospital, I learned about carb counting and how to use the machinery and technology. I remember seeing my mum in tears – that was a shock for me and was the first time I realised our lives really had changed.

I had seen needles for insulin pens around the house and had seen Dad have hypos and occasionally pass out, so I thought I'd be exactly like him. I didn't have a positive outlook. We didn't talk about Dad's diabetes at home, it wasn't an open thing. When I was diagnosed, I think my mum thought I'd be the same way and was worried about our relationship being affected. But me being diagnosed completely changed the dynamics in the house. I felt like everything was going to be OK because Dad's got diabetes, and he was my superhero.

I helped him change his mindset, and he helped me in the sense that diabetes wasn't a completely foreign thing at all. I didn't really struggle with my diabetes when I was diagnosed – it was only when I went to college that I thought, 'this is actually quite hard'. There was a bit of embarrassment about things.

University was a big change, and I avoided talking about diabetes because I couldn't be bothered to go over the same conversation. It's hard moving away from home, away from your support system. But I've got brilliant friends who are so clued up on it, and one of my best friends has type 1, too.

My brother Matthew was diagnosed with type 1 at 13, around the same age as me and Dad. We became a lot closer around that time. By then, it was kind of normal to have diabetes in our house! We can talk about things Matthew maybe doesn't want to talk to our parents about. And although he was scared after seeing me and Dad living with diabetes, he was so strong.

As much as I hate this condition – and I do hate it – I think about the silver linings. The fact it has changed my dad's life does make me like it more. I've learned a lot about myself, and it's not stopped me from doing anything. But there are times when it makes things a lot harder.

I did kind of struggle for a while, comparing myself to Dad because he is so great at being in range all the time. But then I got to grips with it.

For more information about the Diabetes Lived Experience Advisory Committee, visit: diabetes.org.uk/bal-DLEA Together Type 1 is a community for everyone aged 11-25 living with type 1 who understand what it's really like. Visit: diabetes.org.uk/bal-TT1

MEET OUR NEW CEO COLETTE MARSHALL

After working as our Director of Services, Volunteering and Local Impact for 10 years, Colette has been appointed as our Chief Executive

I feel privileged in many ways. I've worked for this amazing cause for 10 years now, and I think it's the most important health issue of our time. Diabetes is not high enough up the agenda, and there are challenges within the NHS, but this is a time of real ambition and hope. We're beginning to see major breakthroughs both in type 1 and type 2 in terms of research and tech. I think we're on the brink of great change.

In my previous role, I was responsible for the services we provide for people with diabetes, volunteering, and our work in nations and regions.

I oversaw everything from our helpline to the online forum, Learning Zone, our local volunteer groups, type 1 events and the Diabetes UK Professional Conference. It was incredibly varied and very interesting.

Supporters of Diabetes UK are so incredibly committed and passionate about diabetes. I'm open and available to hear from people – I'll be listening and learning as much as possible.

Looking ahead

We need to tackle inequalities and stigma. I think, in society, there's a view that it's people's fault that they have diabetes, and it's their responsibility to fix it. We have to change the narrative and make sure people with diabetes get the respect and the support they need.

We also need to address inequalities that exist around access to diabetes technology and because we know that type 2 is more prevalent in those with low incomes and people from Black African, African Caribbean and South Asian backgrounds, we need more research on the cultural impacts of diagnosis, so that we can help as many people as possible.

We'll look at how we can build on the Steve Morgan Foundation ambition for type 1 diabetes. It's been great seeing continuous glucose monitoring (CGM) rolled out, but it's still very hard living with type 1. We're also looking at how we can boost research and how technology can support people with type 2.

FUN FACT

We have about 18 instruments at home – you would not want to be our neighbours. I'm learning the piano and got my Grade 2 last year. I'm interested in nature and the environment and sit as a Trustee at the Bat Conservation Trust. It's really important to learn from other charities in different sectors. I'm a regular volunteer for the London Bridges Wellness Walk. Everyone there is trying to raise money for diabetes – it's fabulous.

Together we can achieve anything

My colleagues and the whole diabetes community really stepped up during the pandemic. We had so many calls to the helpline, and our teams made sure we always had somebody there. At the same time, we were communicating with the NHS and healthcare professionals to try and get really good information out to people. Volunteers and local groups were also calling all their members and supporters to make sure they were OK.

It was an awful time, but it was amazing to see the whole diabetes family come together and help each other out. Over the decades, we've achieved incredible things.

Image: iStock

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