



Greetings for Christmas and the New Year!

This is the final Newsletter of 2022 and the Trustees and Staff would like to send all our members and readers best wishes for Christmas and the New Year. We would also like to thank you for your help and support throughout the year, especially as 2022 has not been an easy year for many of us. We are particularly grateful for your donations as IDDT, like everyone else, is facing increasing costs.

IDDT continues to grow and requests for our booklets are increasing not only from people with diabetes, but also from health professionals to give to their patients. It has been a busy year for IDDT and the staff and we look forward to being of help during 2023. Sadly, the postcode lottery of care is still very much around and 2022 has also been a year when IDDT has received many more calls from people with diabetes. It worries us that many of these are from people who are not receiving the care, support and information that they should for them to manage their diabetes and to prevent possible future complications. We do our best to listen and to help where we can, so don't forget that we are at the end of the phone.

However, Christmas is coming and is still a time to enjoy, with presents, may be not so many this year, and festive of food. If you or a member of your family has diabetes, it can also be a worrying and stressful time, especially if it is your first Christmas with diabetes. We hope our FREE booklet "Diabetes at Christmas" will be of help as it offers help and advice about managing diabetes at Christmas.

There is a range of recipes and ideas about food and eating, allowing you to enjoy Christmas and still manage your diabetes. For your copy, give us a call on 01604 622837 or email enquiries@iddtinternational.org

2023 Diabetes Everyday Diaries still available!

IDDT's Diary for 2023 is on sale for anyone who lives with diabetes, whether you have diabetes yourself, your partner has diabetes or you are a parent of a child with diabetes. A lot of people have already purchased the Diary, but we still have copies left if you would like one, just use the form enclosed with this Newsletter.

Christmas cards

We would also like to thank everyone who has already bought Christmas cards from us and remind those who haven't that we still have cards available, they are £3.25 per pack of 10 plus 80p per pack p&p.



With All Good Wishes for Christmas and the New Year!

Update from Ukraine

Thanks to the generosity of our members and many other people, we have sent further consignments of insulin and other diabetes supplies to help people with diabetes in Ukraine, 74 boxes of supplies in our latest consignment. You have responded brilliantly to our request for Type 2 tablets, so a particular thanks to people who donated unwanted metformin.

Many of you are aware that IDDT is the UK arm of Insulin for Life (IFL) a global organisation helping people in need of insulin and other diabetes supplies and we have all been working together to help people in Ukraine. IDDT has received meters and strips from IFL in Australia and insulin pens and vials from IFL in the United States. When we work together, it shows what we can achieve!

So many thanks to everyone who has helped the people of Ukraine!

In August, our contacts in Ukraine, Dmytro and Svetlana, came over to the UK to try to obtain other supplies from the UK and they visited IDDT. We heard first-hand about the situation in Ukraine and their needs for the coming cold winter in areas where there are no electricity supplies.



We are all very well aware that the newspapers and news bulletins are often taken up with UK political issues, but the situation in Ukraine has not gone away, nor have the needs of Ukrainian people with Type 1 or Type 2 diabetes. So IDDT is still collecting unwanted, in-date insulin, blood glucose meters, test strips, needles, lancets and tablets for Type 2 diabetes.

For Christmas presents for children in Ukraine, our 'knitters' have knitted copies of jelly babies, scarves, gloves and blankets for the winter. So many thanks to all of these kind people – they are showing people in Ukraine that we are thinking about them and that we care.

Free life-changing technology for people with Type 1 diabetes

NHS patients in England with Type 1 diabetes are now eligible for a free continuous glucose monitor (CGM) after the NHS secured a new 'cost-effective' deal.

Earlier this year, the NHS announced it would rollout CGM technology to everyone living with Type 1 diabetes as part of its 'Long Term Plan' to deliver world-class healthcare. Now a deal between the NHS and manufacturer DEXCOM means a CGM called the Dexcom ONE Real Time-Continuous Glucose Monitoring is available on prescription to people with Type 1 diabetes. CGMs are normally more expensive than flash monitors (Freestyle Libre) but the NHS agreed a new cost-effective deal with Dexcom, so they are now available on prescription at a similar price.

The Dexcom sensor is no bigger than a bottle cap, connects to your smartphone device, and will provide real-time glucose monitoring for a maximum of ten days once affixed to the arm.

This enables someone with Type 1 diabetes to track their glucose levels and adjust their insulin doses and other treatments as necessary.

The CGM will be prescribed either by the patient's GP surgery or hospital and comes in a starter pack including all the components – a sensor, transmitter and product information. Afterwards, patients will be able to get repeat prescriptions at a pharmacy.

When the announcement was made, Dr Partha Kar, national speciality advisor for diabetes and obesity said: "This is a huge step forward for Type 1 diabetes care and these monitors will be life-changing for anyone with the illness – giving them more choice to manage their condition in the most convenient way possible – as well as the best chance at living healthier lives, reducing their risk of hospitalisation and illnesses associated with diabetes, which in turn reduces pressure on wider NHS services."

Just a note: there is no mention of these CGMs being available to people with Type 2 diabetes, difficult to understand because some people with Type 2 are treated with insulin and are likely to

experience hypos and as likely to develop the same complications as those with Type 1 diabetes.

Flash and CGM education pack for healthcare professionals

Healthcare professionals working in primary care can increase their knowledge of and confidence in flash glucose monitoring and continuous glucose monitoring (CGM) thanks to a new package of resources developed by EDEN (Effective Diabetes Education Now). It includes comprehensive information and learning for both Abbott and Dexcom products and has been endorsed by Primary Care Diabetes Society and Diabetes Technology Network. It consists of five key education elements:

- 1 Initial conversation piece and detailed core knowledge – video resources
- 2 Case studies for type 1 and type 2 diabetes – video and slide resources
- 3 Product training package, Abbott and Dexcom – e-learning
- 4 Implementation guide – web based
- 5 DTN-UK – additional learning

For more information visit:

<https://www.glucose-sensing.com> or <https://www.edendiabetes.com>.

CGM use varies across age in patients with Type 1 diabetes

New findings from a cross-sectional US study suggest that continuous glucose monitoring (CGM) use in people with Type 1 diabetes varies across age range with the highest probability of use found to occur in middle adulthood. The findings show that the probability of CGM use decreased with increasing age in older adulthood.

The introduction of small, remote continuous glucose monitoring in Type 1 diabetes care has become much more common but few studies have investigated age, the probability of CGM use and the association of CGM use with glycaemic control across the lifespan.

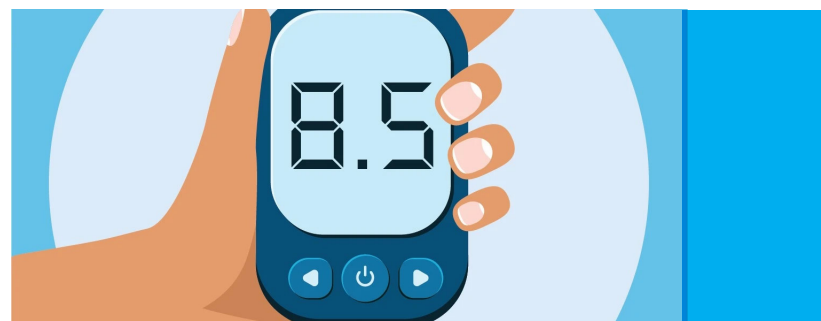
As such, in the current study population:

- the average HbA1c level was 8.57% (70mmol/mol) and 5779 patients (30%) reported CGM use.
- the adjusted probability of CGM use decreased in adolescence and increased until approximately age 40.
- the CGM use probability remained relatively constant until age 60 and decreased until age 75.

- CGM use was associated with lower HbA1c levels across age compared with non-use, but the association dwindled with increasing age.

The researchers suggested that the clinically significant differences in HbA1c levels among CGM users and non-users among youth and adult populations demonstrate the need to identify age-related barriers to CGM use.

They also recommended that future research should investigate patterns in CGM use and severe hypoglycaemia, diabetic ketoacidosis, and health care over the lifespan. (JAMA Network Open, July 2022)





(IDDT, top left, makes an entrance in the new medical centre)

Stop Press! - IDDT in Albert Square!

IDDT made an unannounced 'cameo' appearance in BBC's Eastenders at the end of September.

Initial reviews have been very favourable and we hope to see IDDT in Albert Square in many forthcoming episodes!

IDDT's full resumé can be viewed here:

<https://www.iddt.org/publications>

Hypurin Porcine Neutral and Isophane supplies

As many of our members have realised, supplies of porcine insulin, both Neutral and Isophane, have been difficult over the last 3 months or so. I have been in regular contact with Wockhardt about this. People have been wrongly told by pharmacies that Hypurin Porcine insulins are not available but at no point have Neutral or Isophane not been available at all. Sometimes cartridges have not been available and sometimes vials but there has never been a situation where there is NO Neutral or Isophane.

We have been advising people to change their prescription with their GP to whichever one is available as a temporary measure and to ensure that they do not have to change to a synthetic insulin.

Jenny Hirst, Co-Chair, IDDT

More evidence on 'pre-diabetes'

IDDT prefers to refer to 'pre-diabetes' as 'being at risk of Type 2 diabetes' because this is what it is! Initially, although not a popular view.

Some people estimated that only 10% of people who were told that they had pre-diabetes actually went on to develop Type 2 diabetes.

IDDT's concerns have always been that the expression 'pre-diabetes' causes upset to many people, often unnecessarily and it is not actually a diagnosis! A recent study of 3,888 people with 'pre-diabetes' found:

- only 6% of developed diabetes after 12 months,
- 63.4% had repeated glycaemic testing during that time and only 10.4% had a diagnosis of 'pre-diabetes',
- 1% were referred to nutrition services and 5.4% were prescribed metformin.

(Journal of General Internal Medicine, March 2022)

Over the years, nothing has changed from the original 10% estimate and we have to wonder whether there should be some re-thinking and re-naming of 'pre-diabetes'.

A wider range of healthcare professionals are allowed to issue sick notes

In an attempt to free up more GP time, under new reforms nurses, pharmacists, physiotherapists and occupational therapists now have the authority to issue a sick note (now called fit notes) rather than just family doctors. However, these professionals are only allowed to certify a sick/fit note if they work in a GP surgery or a hospital eg high street pharmacists are unable to sign people off work.

These changes are now active in England with Wales, Scotland and Northern Ireland expected to follow suit.

Cutting out the unnecessary bureaucracy is expected to allow more patients to be seen by their GP more quickly, to help with the Covid backlog and deliver an extra 50 million appointments a year by 2024.

Advice - pharmacy services can help

A YouGov survey has shown that one in ten adults in the UK have turned to their local pharmacy for advice on how to prevent serious health conditions such as Type 2 diabetes, heart disease and cancer.

- Many people could be missing out on opportunities to access free advice via their local pharmacies that could help them make life-changing improvements to their health.



- Of those who had visited a pharmacist for health-related advice or checks, 43% said talking to them had eased their concerns around wasting their GP's time.
- Nearly a quarter of those who had visited a pharmacy for advice or checks found it easier to speak to someone in a pharmacy than in other healthcare settings.
- 53% liked not having to book an appointment when using a pharmacy for information and advice.
- Only 2% of adults in the UK visited their pharmacist for a blood pressure check in the last year, although around 4.8 million people are living with undiagnosed high blood pressure.

It is worth thinking about taking advantage of the information and support that can be offered by your local pharmacy.

All patients to have a named GP

Everyone registered with a GP practice now must have a named GP. The named GP is largely a role of oversight but reassures patients that they have one GP who is responsible for their care.

- All patients should be given a named GP within 20 days of registration.
- The practice must confirm on their website that every patient has a named GP.
- If a patient requests a particular GP, reasonable efforts should be made to accommodate their preference.

- Patients do not have to see their named GP when they book an appointment and are entitled to choose to see any GP or nurse in the practice.
- The named GP works with relevant health and social care professionals to deliver a multi-disciplinary care package that meets the needs of the patient.
- The named GP ensures that these patients have access to a health check as set out in the GMS contract.

INTERNATIONAL

News

Technology and home visits can help South Africans with diabetes cope with insulin

Approximately 4.5 million South Africans have Type 2 diabetes. If it's not managed well, it can be life-threatening and in South Africa, it is one of the leading causes of death. Healthcare workers must have the knowledge, skills and time required to monitor patients and adjust the insulin dose when necessary, so to address this, an intervention called the Tshwane Insulin Project has been developed.

It combines various elements including a digital tool, the Vula app, which health professionals can use to communicate with each other.

Also involved in the care of people with diabetes are community health workers and training for healthcare professionals at primary care level. (July 2022)

Biden signs Inflation Reduction Act into law

In August, President Joe Biden signed into law the Inflation Reduction Act, which contains provisions aimed at lowering prescription drug costs and improving access to health care. The law will extend enhanced Affordable Care Act subsidies to 2025, allow the federal government to negotiate prices for some of the costliest prescription drugs covered by

Medicare, limit out-of-pocket medication costs for Medicare beneficiaries at \$2,000, penalise pharmaceutical companies if drug prices rise faster than the rate of inflation, and cap monthly insulin out-of-pocket costs at \$35 for Medicare beneficiaries. (Associated Press, 8th August 2022)

WHO gives global death toll from the pandemic

The World Health Organisation (WHO) has tried to calculate the global death toll from the coronavirus pandemic and found that vastly more people died than previously believed.

By the end of 2021, a global total of about 15 million had died, more than double the official total of six million reported by individual countries.

Publishing this amazing under-estimate has been delayed for months because of objections from India. India disputes the

figures of how many of its citizens died and has tried to keep it from becoming public.

More than a third of the additional nine million deaths are estimated to have occurred in India, where the government has stood by its own count of about 520,000.

However, the WHO shows India's toll is at least four million according to people familiar with the numbers but who were not authorised to disclose them, giving India the highest tally in the world.

News from France - extraordinary profits by pharma companies

"We can all see that they have made a significant amount of money" because of the COVID-19 pandemic, the French Prime Minister said. (28 Sept. 2022)

In France, rising profits of pharmaceutical companies have resulted in calls for the companies to be included in extraordinary profits tax initiatives, similar to the 'windfall' taxes on energy suppliers.

In the first quarter of 2022, Pfizer reported \$27.5 billion in revenue, an increase of 77% in just one year.

In the first quarter of 2020, Sanofi reported a 15.9% year-on-year increase in net income, equating to just over €2 billion.

At the height of the Covid pandemic, health expenditures increased significantly to finance vaccination or PCR/antigen testing.

The total bill for pandemic-related state spending will come to €11 billion by the end of 2022, according to French government estimates – leading some to call for a tax on the profits made by big pharma over the same period to rebalance the books.

What's new?

Abbott Announces Future of Biowearables at Consumer Electronics Show

Abbott, manufacturers of the FreeStyle Libre presented a 'keynote spec' at an influential tech event. During the speech, the company announced it is developing a new category of consumer biowearables called Lingo.

These biowearables are being designed to translate your body's unique language into actionable data to help you track and measure your general health and wellness. The sensor technology is being designed to track key signals in the body such as glucose, ketones and lactate and could also be used one day to track alcohol levels.

Abbott developed the FreeStyle Libre for people with diabetes in 2014. They then developed a product designed for athletes with the 2020 launch of Libre Sense Glucose Sport Biowearable in Europe. Elite athletes use this biowearable to optimise how they fuel their bodies for rigorous training. Lingo aims to expand glucose monitoring to people looking to manage their weight, sleep better, improve energy and think clearer.

For the future, there could be (i) a ketone biowearable to track ketones continuously, see how fast you are getting into ketosis, and understand exactly what keeps you there by providing insights on dieting and weight loss;

(ii) a lactate biowearable to track continuous lactate build up during exercise, which can be used as an indicator of athletic performance.

New camera will make diabetic eye screening quicker and easier

Made by a Finnish company, Optomed, a new handheld fundus (retinal) camera has been proved to deliver quicker, easier diagnosis of diabetic retinopathy.

A fundus camera is specifically designed to take colour photos of the back eye to pick up early changes in the eyes because if left untreated, retinopathy can lead to visual impairment or blindness. The camera uses a specialised, low-power microscope with an attached camera to capture pictures of the retina, blood vessels, the optic disk, macula and posterior pole.

Traditionally, a fundus camera is a large piece of equipment that sits on a desk and requires the patient to rest their chin in place and look down the lens. The new handheld camera will improve access to eye screens for everyone, everywhere, as it's so portable. A clinical trial carried out at Oulu University Hospital, Finland and involving 157 diabetic patients concluded that the handheld camera performs well in diabetic retinal screening, the images are good quality and changes in the retina are easily detected. (Acta Ophthalmologica, December 2021)

Necklace for glucose monitoring

US researchers have developed a smart necklace that uses a wireless biochemical sensor to track glucose levels in sweat. The device detected increases in glucose in the sweat of study participants who consumed sweetened drinks after indoor cycling, *Science Advances*, August 2022)

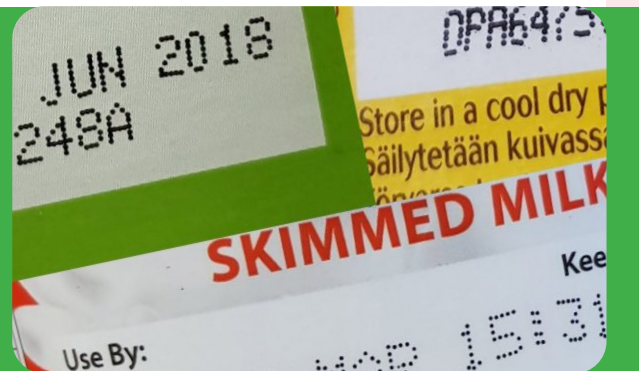
Lower hypoglycaemia risk found for weekly basal insulin

A mid-stage study found lower rates of overall hypoglycaemia and night-time hypoglycaemia

among patients with long-standing Type 2 diabetes who were treated with a novel once-weekly basal insulin compared with insulin degludec (Tresiba).

The weekly insulin achieved similar glycaemic control with respect to HbA1c after 32 weeks of treatment compared to insulin degludec, despite higher fasting glucose targets in patients with Type 2 diabetes previously treated with basal insulin. (Presented at European Association for the Study of Diabetes)

Food expiration dates should be science-based



A recent article points out that in the US, expiry dates on food products, except infant formula, are not regulated by the FDA and are not always based on food safety science. This causes confusion and contributes to waste.

So what's happening in the UK? One study estimated 20% of food wasted in UK households is due to misinterpretation of date labels. Out of a mistaken concern for food safety, 91% of consumers occasionally throw food away based on the "sell by" date, which isn't really about product safety at all. "Sell by" dates are actually meant to let stores know how to rotate their stock.

A food dating system based on scientific data could significantly decrease waste and save us all money but in the meantime, the advice being given is that people should rely on their eyes and noses to judge freshness and pay close attention to expiration dates for more perishable foods in which microbes grow easily. Manufacturers are responsible for deciding whether to apply a use-by date or a best before date on their products which will depend on factors such as how the food is made and how risky it is.

Interestingly, this year in the UK, some of the major supermarkets are scrapping 'best before' dates and replacing them with 'use by' dates, to help to reduce waste and save money during the present financial difficulties.

Food may contain bacteria and if stored for too long or at the wrong temperature, can cause

food poisoning. So, it's important to understand the different types of dates and advice on food packaging. The Food Standards Agency (last updated March 2021) makes the following points:

'Best before' dates are more about quality than safety, so for example, if you have a packet of biscuits and eat these after the 'best before' date, they may not be as crisp but this is not a food safety issue. The best before date will only be accurate if the food is stored according to the instructions on the packaging.

The sniff test is for foods with a best before date. You can use sensory cues to find out if the food is appropriate to eat (i) look for visible mould on bread (ii) taste to see if biscuits/crisps are stale or (iii) sniff/smell some dairy products to see if they have soured.

'Use-by' dates on food is about safety and you should not eat, cook or freeze food after this date even if it looks and smells fine because use-by dates are on food that goes off quickly eg meat products and ready to eat salads. For the use-by date to be a valid guide, you must carefully follow storage instructions eg if the instructions on the packaging tell you to refrigerate after opening, you should keep the food in a fridge at 5°C or below.

Freeze and defrost your food correctly
Food properly frozen won't deteriorate and bacteria cannot grow in it, so when frozen it can't become more unsafe. Only defrost food as you need it and eat it within 24 hours and cook it until steaming hot before serving.

A few facts

Type 1 diabetes in adults is more frequent than expected

A new systematic review has concluded that adult-onset Type 1 diabetes is far more common than previously believed.

For many years, it was widely assumed that Type 1 diabetes was overwhelmingly a disease of the young and it was even called 'Juvenile Diabetes' until it was decided to categorise diabetes as Type 1 or Type 2.

The more information that becomes available, the more it is realised just how many adults develop the disease, too. For example, in the US there are an estimated 37% more new cases of Type 1 diabetes in adults than there are in children every year.

Epidemiology is the study of the frequency and pattern of causes and risk factors for diseases in specific populations. An article published in March 2022 describes an analysis of 46 studies on the epidemiology of adult-onset Type 1 diabetes. It also included information from 32 countries in addition to surveys and registers from non-academic sources, such as government health organisations. Here are the main points.

- The nation with the highest incidence of adult-onset Type 1 diabetes was Sweden, where 30 adults out of 100,000 are diagnosed annually, an even higher rate than is found in children in most countries.
- Across all ages and countries, Type 1 diabetes is more common in males than in females.
- Adult-onset Type 1 is most common in the Nordic countries and least common in East Asia but the reasons are unknown. Is it due to genetic factors, environmental factors or something else entirely?
- Adults of all ages seem equally likely to develop Type 1 diabetes, although the condition does still develop most frequently in the young. After the age of 20 there are no obvious trends, so people can be diagnosed with Type 1 diabetes at any age and the risk of developing Type 1 does not appear to decline with age.
- There is little evidence to show that rates of adult-onset diabetes are increasing globally which is in marked contrast to children, where many studies have found that Type 1 diabetes is becoming very much more common.

- There is not enough information on adults with Type 1 diabetes in the developing world, so it is difficult to generalise about trends among the billions of people that live there.

Why does this matter?

The old belief that Type 1 diabetes is a condition of the young can introduce biases that cause doctors to misdiagnose. As we have said previously, a 2019 survey found that nearly 40% of adults that were diagnosed with Type 1 diabetes were initially misdiagnosed - about three-quarters were incorrectly told they had Type 2 diabetes, while others were told they were suffering from infections or other unrelated health issues.

Misdiagnosis means that new patients are incorrectly treated, or not treated at all, leading to frustrations and danger, increasing the risk of short- and long-term complications, including diabetic ketoacidosis (DKA). This new review also found that there is no international consensus on how to define adult-onset Type 1 diabetes. The authors stated that "There is a pressing need to define, test, and compare diagnostic criteria in multiple high-quality studies to better distinguish Type 1 from Type 2 diabetes in adults". (Diabetes Care, March 2022)

It has to be hoped that a more complete understanding of the surprising frequency of adult-onset Type 1 diabetes will help people across the globe receive the proper diagnoses and care with all possible speed.

Double diabetes

You may have heard of "double diabetes," but not known what it means. A publication in the journal BMC Endocrine Disorders looked at how obesity relates to double diabetes in adults with Type 1 diabetes.

Double diabetes is defined as having Type 1 diabetes in combination with insulin resistance, which is the main feature of Type 2 diabetes. It's unclear exactly how common double diabetes is, so researchers in Bristol, reviewed the data for their patients who met the following criteria:

1. Low C-peptide
2. Two or more positive Type 1 diabetes autoantibodies

3. One positive Type 1 autoantibody + diagnosis age under 30 years
4. History of DKA + diagnosis aged over 30 years
5. Diagnosed under 20 years regardless of autoantibody presence.

They found 107 patients and then they looked at how many of the people with diabetes were overweight (a BMI of 25-29.9 kg/m²) and how many were obese (a BMI over 30 kg/m²). To find out about insulin resistance they used information from the person with diabetes including waist circumference, hypertension, weight, blood pressure and more to calculate the risk of complications associated with insulin resistance.

Of the 107 patients from the clinic in Bristol:

- 30 (28%) were overweight and 27 (25.2%) were obese.
- 62 of 107 (57.9%) met the definition of having double diabetes.

Conclusions

People were more likely to have double diabetes if they were older, had microalbuminuria (protein in the urine), had a longer duration of diabetes, had poor lipid profiles and had higher HbA1c despite higher insulin doses.

Double diabetes causes increased risks for people with Type 1 diabetes as it adds to the risks that they already face. This is very challenging because insulin itself can promote weight gain which itself can create insulin resistance, so a vicious circle.

The researchers suggest that effective weight management is necessary as well as further research on wider populations. They add that it is worth discussing dietary and lifestyle modifications with your healthcare team if you are concerned about weight management to reduce your risks.

Mortality has declined in people with Type 1 diabetes in recent decades

This study examined how the pattern of mortality decline differs by country, age and gender, and how mortality trends in Type 1 diabetes relate to trends in general population mortality. The researchers looked at information on all-cause mortality during the period 2000–2016 in people with Type 1 diabetes aged 0–79 years from Australia, Denmark, Latvia, Scotland, Spain (Catalonia) and the USA. These all-cause mortality rates were compared with those in the non-diabetic population.

All six countries showed a decline in age- and gender-standardised all-cause mortality rates in people with Type 1 diabetes from 2000 to 2016. All-cause mortality was higher for males and in older people, but the rate of decline in mortality was generally unaffected by age or gender.

The researchers concluded that all-cause mortality in people with Type 1 diabetes has declined in recent years in most of the included countries but improvements in mortality relative to the non-diabetic population are less consistent. (Diabetologia, March 2022)

Do people with diabetes need more counselling on low blood sugars?

This question arises as a result of a study by researchers at John Hopkins University who concluded that 'doctors need to do a better job of discussing low blood sugars with patients who take high risk medications, such as insulin.' They go on to say that for patients to have safe diabetes treatment, there needs to be open communication between them and their healthcare provider about medication side effects, especially hypoglycaemia.

- The new study looked at 83 primary care visits by 33 patients taking insulin or sulfonylureas and only in less than a quarter of those visits was low blood sugar and its prevention discussed.
- 12% of patients who took part in a survey said they had had severe hypos in the previous year.
- Despite patients being concerned about hypos, doctors rarely checked how often hypos occurred, their severity or how quality of

life was affected.

- Doctors hardly ever advised against driving if blood sugars were low or dropping.

The researchers pointed out that it is important for patients to raise the topic too. Patient and doctor working together is the way forward to avoid hypos and choose the safest diabetes treatment. (Journal of Internal Medicine, February 2021)

This was an American study and we have to hope that this is not the situation in the UK. However, we have to remember:

- Hypos, and the fear of them, are the greatest day-to-day fears for people taking insulin or Type 2 medications that can cause low blood sugars,
- Good blood glucose control is not just the avoidance of high sugars (hyperglycaemia) but also the avoidance of low blood sugars

(hypoglycaemia), something we often forget because we are aiming for 'good' HbA1cs.

If frequent and/or severe hypos are happening, then it is important to discuss this with your doctor or healthcare professional to work out ways of trying to avoid these, even if this means changing your medication or insulin type or regime.

It also has to be said that sometimes people don't discuss hypos with their healthcare team

because of the fear of losing their driving licence.

This is a Catch 22 situation but the consequences of having a hypo while driving can be disastrous for those with diabetes and others, so far better to investigate alternatives to avoid this situation.

If your doctor or healthcare professional does not raise the issue of hypos, then you can!

BITS AND PIECES

Small amount of daily exercise could increase longevity

A US study has found that even 10 minutes of exercise a day could have saved the lives of about 110,000 older adults per year in the past, and 20 to 30 minutes a day could have saved even more. Researchers used accelerometer-based measurements to come up with estimates for the 40 to 85 year-old age group. (JAMA Internal Medicine, January 2022)

Return to exercise gradually after a COVID-19 infection

People who have been infected with the coronavirus often have trouble resuming an exercise regimen or returning to their previous level of fitness due to fatigue, lethargy, breathing difficulty and other symptoms.

Guidelines from the American College of Cardiology Sports & Exercise Cardiology stress the importance of a safe, gradual return to former exercise levels.

The risk of depression and Type 2 diabetes linked to long COVID-19

Exercising regularly may reduce the risk of developing depression and Type 2 diabetes associated with long COVID-19, according to the results of a study at Pennington Biomedical Research Center in Louisiana. The research concluded that exercise takes care of the inflammation that leads to elevated blood glucose and the development and progression of diabetes and clinical depression. (Exercise and Sport Sciences Reviews, March 2022).

Adolescent sleep times linked to metabolic health

Adolescents who slept less than the recommended eight hours each night had higher

average metabolic syndrome scores and a greater likelihood of overweight or obesity compared with those who slept the recommended time. The researchers suggest that on top of stressing the importance of dietary habits and physical activity, adequate sleep needs to be considered too. (Presented at the European Society of Cardiology Congress, August 2022)

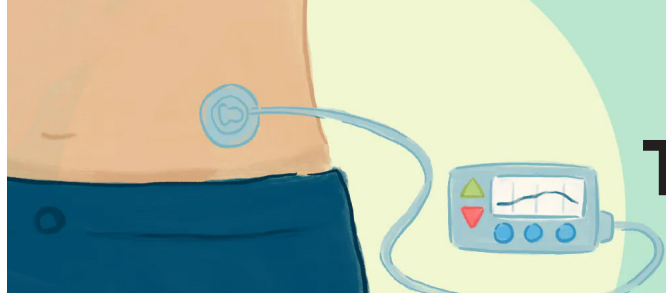
Children with Type 1 diabetes may need help getting enough sleep

When children with Type 1 diabetes don't get enough rest at night, in addition to having fatigue and poor mood, they may also be unable to focus on adhering to treatment regimens during the day.

This makes it even more important for parents and healthcare professionals to help children prioritise good sleep by keeping consistent bedtime and waking routines, helping them wind down in the evening, shutting off electronic devices at night and providing a consistent message about the importance of good sleep. (The American Journal of Managed Care, July 2022)

Screening at ages 2 and 6 identifies risk for Type 1 diabetes

A recent study showed that screening high-risk children for islet autoantibodies at the ages of 2 and 6 years old was able to identify the majority of children who would develop Type 1 diabetes by their teenage years. The two-age screening strategy yielded a sensitivity of 82% and positive predictive value of 79% for Type 1 diabetes by the age of 15 years. However, the prediction of sensitivity by age differed by country, suggesting that the optimal ages for autoantibody testing might differ by geographic region. (Lancet Diabetes & Endocrinology, July 2022)



To pump or not to pump?

Recently there was an interesting article/blog on an American website about pump use. In the US more people use an insulin pump than in the UK, although some in the UK think that it should be a choice for everyone. The blog points out that choice is important and raises the question - is pump therapy right for everyone?

The writer has had Type 1 diabetes for 23 years and she used an insulin pump exclusively for at least 7 of those years and she makes some interesting points. She says,

"It blows people's minds that I would choose multiple daily injections over wearing an insulin pump that sits in my skin 24/7. For many people, an insulin pump offers freedom, flexibility, less stress and better blood sugars. Not for me. Not even during two pregnancies!"

Her reasons for not using a pump

- She has worked out how to make multiple daily injections (MDI) work for her to achieve her blood sugar targets, be physically active and eat a flexible diet without diabetes ruling her life. Using continuous glucose monitoring has played a big role in this.
- Her HbA1c is significantly lower now than when she used a pump, but she says this is because of her age and lifestyle, not the method of insulin delivery. Her HbA1cs were higher in her late teens but now are in the 5s to 6s.
- She has very sensitive skin which reacts badly to a constant infusion of insulin. Wearing a CGM in her skin is much simpler as it is not pushing anything into her and if it fails suddenly or gets pulled out accidentally, it's really not a big deal or a very urgent issue as it is if the pump fails.
- She also hates having to wear an insulin pump on her belt or in her pocket and to have to deal with it during showers, sex, sleep or exercise.

However, she points out that the technology alone does not improve your HbA1c and whatever method of administering insulin,

she still has to put in the effort, make thoughtful choices around food, manage the impact of daily exercise and check her blood sugar throughout the day to juggle the many other factors that have an impact diabetes control. Certainly, today's closed-loop pumps can be a game-changer for those who appreciate that type of support but for her, wearing an insulin-delivery device in her skin 24/7 creates more stress and reduces her overall feeling of freedom in life with Type 1 diabetes.

When an insulin pump fails, it's a very urgent issue

She goes on to point out that it is really stressful how quickly you can develop moderate ketones or simply high blood sugars because a pump site failed or there's a kink in the cannula and insulin is not getting through. Using long-acting insulin in a multi-dose regime (MDI) for her background/basal insulin means she never has to worry about this and knows without doubt she is receiving the insulin she needs. The possibility of pump failure from time to time is to be expected and has to be dealt with to get the other benefits from pumping.

One of those benefits is that with an insulin pump you can press a button at any time and take a small dose of insulin to cover an impulsive extra snack. This is not as easy to do with MDI although tiny doses of rapid-acting can be injected. MDI does mean more planning of meals and when exercising to achieve target blood glucose levels but maybe this also means having to be more thoughtful about how to manage Type 1 diabetes.

The importance of these thoughts on pumping is that there is a choice and some people will want to use this method of managing their diabetes, others will prefer multi-dose regimes and sometimes during life, pumps will be right and other times MDI will be right.

It is all about informed choice!
(This article is based on a blog written by Ginger Vieira, December 11th, 2021)

Heating and eating - some practical tips for our protection



As the cost of food, gas, electricity, and fuel continues to rise in the UK, during 'the cost-of-living crisis' it is important that we protect our health. In this article we look at some practical tips that may be of help during these difficult times. In a YouGov survey carried out in April and May 2022 it was found that:

- 55% of people in the UK felt that the cost-of-living crisis has negatively impacted their health,
- 25% of this group also had this confirmed by a medical professional,
- Of this group, 84% blamed the rising cost of heating.

Heating - the health risks

In colder weather and winter, people who ration their heating, to afford their bills, are at risk of cold-related health problems.

This particularly applies to elderly people as they are more vulnerable because they lose body heat faster.

An older person with a body temperature below 35 degrees Celsius (°C) is at risk of health problems such as:

- Hypothermia.
- Heart attack.
- Liver damage.
- Kidney problems.
- A cold house can also exacerbate less serious yet uncomfortable complaints, such as skin conditions, like ulcers.

Heating tips

- Keep your home heated to at least 18°C and not below 16°C if you're elderly or have impaired mobility.
- If you really need to reduce your heating bill, on milder days turn down your thermostat by one degree at a time, wait, and reassess if you need to again. This is better than dropping the temperature dramatically.
- Check your boiler pressure isn't too low as this can cause your radiators to be less efficient.
- Keep the area around your radiators clear.

Eating – the health risks

Rising food prices are having the second biggest effect on our health after gas prices. Fresh and less processed foods have always been more expensive but now the increase in costs means that these healthier options have become further out of reach for many more people. So, many are turning to cheaper, less nutritious options such as microwave meals, or even cutting back on food completely. A diet with lower nutritional quality increases the risk of many health issues, such as:

- Constipation.
- Type 2 diabetes.
- Heart disease and stroke.
- Some cancers - eg obesity increases the risk of many cancers, including of the colon, kidney, and breast.
- Nutrient deficiencies – eg iron-deficiency anaemia.

Eating Tips

When the temperature drops in cold weather, your body needs food that can help raise your body temperature and make you feel warm. Generally, foods that take longer to digest can help raise your body temperature and make you feel warmer. This is because heat is produced by the process of metabolising food (called thermogenesis). So, look for foods that are high in healthy fats, proteins and carbohydrates as many of these are more complex and take longer to digest. Aim for at least one hot meal a day and try to eat a variety of fruits, vegetables and other unprocessed foods.

Some nutritious foods to keep you warm in cold weather:

Bananas - Bananas have a lot of vitamin B and magnesium, which are important for your thyroid and adrenal glands to function properly. These glands help regulate body temperature and they can also boost mood and preserve memory.

Oats - Start your day with a hot breakfast of porridge made from oats, a good source of whole grains and fibre. Fibre can improve your cholesterol levels, make you feel full, as well as keeping you full and warm.

Coffee - One of the benefits to drinking coffee is the caffeine. Caffeine increases your metabolism, which can raise your body temperature. Technically, iced coffee can be even better because it has more caffeine. However, if you can't give up the warm cup of coffee in your hands, you'll still get the benefits from a hot cup of coffee.

Red meat - Red meat is a good source of iron, an important mineral to help carry oxygen throughout your body. People with low iron levels may notice cold hands and feet or feel tired easily. Eating red meat can also supply vitamin B12, which contributes to healthy nerves and a strong immune system.

Sweet potatoes - Sweet potatoes and other root vegetables need more energy to digest, which

raises your body temperature, making a warm winter meal.

Water - A simple way to help your body stay warm this winter is to drink water. Water keeps your body functioning at its best and helps regulate your internal temperature. Dehydration causes your core temperature to drop, which may lead to hypothermia.

Avoid alcohol - It is said a shot of whisky can keep you warm but whisky and other kinds of alcohol actually lower your body's core temperature. You may feel warm at first but it will be hard to stay warm over time. Alcohol also impairs your ability to shiver, which is a natural response to raise your body temperature so to stay warm this winter, avoid drinking alcohol, especially at outdoor events.

Buying medications and supplements need not be so expensive!

The consumer magazine, Which? has pointed out that buying medications and supplements is a core expense in many UK households, but the benefits of many of these are unproven and could be adding unnecessary amounts of money to already squeezed budgets.

Which? has found ways consumers can save money and stay healthy for less.

Choose unbranded or supermarket own-label medicines – it is not necessary to spend more on pricier branded products, such as painkillers, antihistamines, and supplements. You can shop around for cheaper versions when possible eg full-price branded hay fever tablets can cost 10 times more than a generic version. Similarly, generic ibuprofen or paracetamol packets can cost roughly 30p and contain exactly the same active ingredients as many of the more expensive branded products – and are just as effective for common pain symptoms!

If you are unsure that the two products are the same medicine, you can check the product licence number (PL), this will be the same if the brand and generic medicines are the same.

Tip: often the best value generic medicines can be found in supermarkets and discount stores rather than pharmacies.

Watch out for adverts that claim targeted pain relief and combination meds

Many branded pain medicines often claim to 'target' certain parts of the body, but this cannot be guaranteed.

Nor are some combination medicines necessary – for example, 'cold and flu' tablets usually contain caffeine, paracetamol and phenylephrine hydrochloride, a decongestant. However, a similar caffeine effect can be achieved by taking a much cheaper generic paracetamol and drinking tea or coffee!

Keep fit for less

There are several free ways to keep fit – walking, running, or cycling if you have a bike. Otherwise, the free NHS Fitness Studio videos include instructors covering dancing, Pilates, yoga and its 'Couch to 5K' app caters for runners. In addition, the free Nike Training Club mobile app includes more than 200 videos, covering a wide range of workouts and there are free fitness and workout videos available on YouTube.

There's no need to buy home-workout equipment and there are cheap local gyms such as Anytime Fitness, The Gym Group and PureGym which start from around £10 a month.

Don't overpay for sunscreen

Which? tested popular sunscreens, including five expensive mineral-based creams and eight standard versions from the high street, including cheap supermarket brands, and found the high street products offered good sun protection.

All of the pricier mineral sunscreens tested failed SPF or UVA testing and three failed both tests. However, Which? found plenty of highly effective, cheap sunscreens available on the high street, so there is no need to spend above the odds.

Avoid expensive toothpaste

Toothpaste brands often release new formulas that make big promises for our dental hygiene, with increasingly high prices. Which? asked a panel of dental experts to examine the evidence behind claims on six premium toothpastes and give their verdict on when it is worth spending more – especially as standard fluoride toothpaste is available for as little as £1. They found that while claims were generally supported, the overall benefits of expensive formulations may only be marginal. Cheaper toothpastes may not make fancy claims or have bold packaging designs but if you do not have any particular dental issues, a standard fluoride toothpaste will do the job.

What can go wrong with your thyroid gland?

The thyroid is a little butterfly-shaped gland in the middle of your neck. It's part of the body's endocrine system.

Problems with the thyroid can be caused by: iodine deficiency, autoimmune diseases, in which the immune system attacks the thyroid, leading either to an underactive thyroid or an overactive thyroid. As it can be an autoimmune condition, it is common for people with Type 1 diabetes to also develop thyroid problems but it is equally common in people with Type 2 diabetes. Women are more prone to thyroid issues than men.

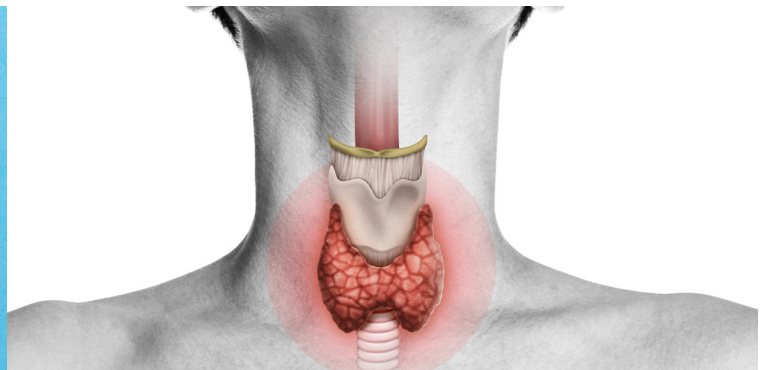
Diabetes itself does not cause thyroid issues, but people with autoimmune conditions are automatically at an increased risk for other related conditions. Research shows that thyroid dysfunction is common among people with diabetes regardless of type, suggesting that biochemical thyroid screening should be a part of routine management for those with Type 1 and Type 2 diabetes. One of the thyroid's primary responsibilities is to manage your body's metabolism by producing two thyroid hormones: T3 and T4.

An overactive thyroid (hyperthyroidism) can cause weight loss, a quick heartbeat and other signs that your body is hyperactive.

Do you need to spend on supplements?

Taking supplements is not risk free and can be expensive. There are certain nutrients that everyone needs, such as Vitamin D, as we have covered in our previous Newsletters. In addition, if you exclude certain food groups such as dairy or meat from your diet, you might need a supplement to top up calcium, iron or vitamin B12, especially as you age.

Overall, the evidence shows you can't replace a healthy diet with supplements. Which? found some supplements where the evidence to support their use isn't conclusive and you could be wasting your money and these include glucosamine, collagen, and Co-enzyme Q10.



An underactive thyroid (hypothyroidism) can leave you feeling sluggish, causes weight gain and a slow heartbeat. Essentially, your body's normal equilibrium slows down.

The term "thyroid disease" is actually an umbrella term for several different conditions that can affect this gland, including:

- hypothyroidism (Hashimoto's disease).
- hyperthyroidism (Graves' disease)
- autoimmune thyroid disease
- goitre (enlargement of the thyroid gland)
- thyroiditis
- thyroid cancer

People with Type 1 diabetes are especially at risk for the two autoimmune types of thyroid disease - hyperactive thyroid (Graves' disease) or underactive thyroid (Hashimoto's disease).

The symptoms of hyperthyroidism and hypothyroidism

The symptoms of these two conditions are very different but it can be difficult to tell there is a problem because the symptoms can develop very slowly. The symptoms can also be similar to those of many other conditions including confusion with symptoms of diabetes, so it can be difficult to diagnose.

Hyperthyroidism symptoms include:

- quick pulse
- pounding heart
- weight loss despite an increased appetite
- shortness of breath when exercising
- muscle weakness or tremors
- trouble concentrating.

Hypothyroidism symptoms are the opposite:

- fatigue and sleepiness
- persistent feeling of being cold
- dry skin
- slower reflexes
- brittle hair
- weight gain despite no change in diet
- low blood pressure or a slow pulse
- increased depression.

Does the thyroid affect diabetes management?

Hyperthyroidism and hypothyroidism do not directly affect blood sugar levels. However, not treating these conditions can cause a lot of problems in managing your blood sugar levels due to the effects the symptoms have on how the body metabolises glucose and insulin.

- Hyperthyroidism, can cause insulin to clear through the body faster, resulting in higher blood sugars. In addition, it can cause rapid heart rate and increase the risk of abnormal heart rhythm, compounding the heart risks posed by diabetes.
- Hypothyroidism can cause insulin to move through your body much more slowly, which could result in lower blood sugars, because the insulin stays around longer. In addition, it can also cause an increase in LDL (bad) cholesterol and triglyceride levels, which adds to the difficulties of high cholesterol with diabetes.

So, it is important that thyroid problems are diagnosed quickly, so anyone experiencing any of the symptoms described should see their doctor. Thyroid dysfunction is common among people with diabetes regardless of type, suggesting that biochemical thyroid screening should be a part of routine management for those with Type 1 and Type 2, according to an analysis of a community-based study published in Clinical Endocrinology.

Diagnosis of thyroid disease

There are two main ways to diagnose a thyroid issue (particularly hypothyroidism):

- a physical examination and a medical history review where the doctor will check for physical signs of any of the symptoms above.
- blood tests with a TSH test which checks the amount of thyroid-stimulating hormone in your system. However, sometimes that test will come back false-normal, so testing for antibodies or other tests may be necessary.



Thyroid medications for treatment

- The treatment for hypothyroidism (Hashimoto's disease) is hormone replacement in pill form. Some people have difficulty finding the right type of thyroid replacement pill. This medication is a synthetic version of the T4 hormone, thyroxine, that copies the action of this thyroid hormone your body would normally produce.
- The most common treatment for hyperthyroidism involves medications that stop the thyroid from making hormones.

It's important to know that these treatments can take 6 to 8 weeks to build up in the system and start working. Thyroid disease is a lifelong condition but medication can reduce or even remove symptoms.

From our own correspondents



Supplies sent to IDDT for Ukraine

Hello Jenny,
I have sent supplies to help people with diabetes in Ukraine. I shouldn't be stockpiling, but I know what it's like running low on medication and the panic because GP may not get the prescription on time as there can be so much red tape. People without diabetes often fail to understand that our survival depends on this drug.

Thank you for the great job you do and to all the people involved. I hope this conflict in Ukraine goes away soon, it's going to be difficult to get back to the life they are used to, so many things have changed, and a lot of innocent people gone. We have to be thankful for the NHS. I am glad that I was able to provide a bit of hope to as many as these supplies can reach.

By email

Low carb diet

Dear Jenny,
I read with interest the article in the September newsletter about low carb diets and that some people had experienced problems when following the suggested swaps. It was interesting that they had found that their blood glucose levels had dropped, causing unwanted symptoms.

I have become very interested in diet and its effect on diabetes, having two close family members who have diabetes. I may be stating the obvious, but we have found while following a low carb diet that insulin and medication need to be titrated accordingly which reduces the likelihood of low blood glucose levels. It is also worth noting that while we usually think about the starchy carbohydrates when considering dietary intake, there are carbs in many other foods too, such as many vegetables, nuts and dairy which can still provide a balanced diet while having less impact on the blood glucose levels.

I realise that many people would be reluctant to alter their diabetic medication and insulin without the guidance of their practitioner, and that in fact it would be discouraged. Our personal experience is that the person with diabetes is the expert on their particular condition and that it is quite empowering to manage one's own diabetes day to day but this requires confidence. The tendency is to "feed the insulin" rather than use it to manage

the condition. However, there are many factors in each individual case, and hypoglycaemia related anxiety is one very close to home for us, so I understand that this is a complex issue. In summary, I just wanted to share our experience of trying a low carb diet and to highlight the benefits, in order that those who have had a negative experience may be encouraged to discuss this with their practitioner who may be able to offer guidance regarding management of diabetic medication in relation to diet.

By email

Note: some the concerns expressed about the low carb diet were actually about advising people with so-called 'pre-diabetes' to go on a low carb diet when they actually don't have diabetes and are not overweight. Not eating enough carbs, can mean that they don't have enough energy (glucose) for tasks such as gardening, so feel unwell because they are actually hypo.

Closing podiatry services

Dear Jenny,
My husband has had Type 1 diabetes for over 60 years. He has been going to a Podiatry Clinic at our local hospital in Cornwall for many years as he has a bone protruding from the sole of one of his feet due to having Charcot's foot several years ago. He is classed as high risk so has had regular appointments. On his last appointment on 13th May, the podiatrist told him she couldn't make him another appointment as there would be no clinic at the hospital for the foreseeable future and I would have to phone an appointments system. I phoned and the first appointment they could offer him was 12th August at a hospital 16 miles away. We had a private podiatrist to see him in July as it was too long to wait until August when he was usually seen weekly as he has an ulcer on the Charcot bone! We are in our 80s so have to find transport and have been told that in emergency we would have to go to a hospital 30 miles away. After reading the front page of the last Newsletter, I thought I would let you know what it is going on in our part of the country.

Mrs H.J.Cornwall

Note: Since receiving this letter, Mrs H.J. has written again to let us know that their clinic is re-opening so they will not have to travel 16 miles.

RESEARCH

New insulin regeneration - a potential treatment option for Type 1 diabetes

A team of Australian-based researchers have taken a step forward in developing a new treatment option for Type 1 diabetes which involves regeneration of insulin in pancreatic stem cells. During the study, the team experimented with pancreas stem cells from a donor with Type 1 diabetes. By using a Food and Drug Administration approved drug, the scientists successfully reactivated the cells to produce insulin again.

The researchers point out that the only other effective therapy requires pancreatic islet transplantation and while this has improved health outcomes for some people with diabetes, transplantation relies on organ donors, so it has limited widespread use. In addition, they point out that more work is required to define the properties of these cells and establish protocols to isolate and expand them.

This new therapy is still far away, but the researchers think this study represents an important step along the way to devising a lasting treatment that might be applicable for all types of diabetes. According to the researchers, their new pathway does not include ethical concerns that are frequently associated with embryonic stem cells. (Nature, Signal Transduction and Targeted Therapy, August 2022)

Children with Type 1 diabetes and their family members are at increased risk of mental health problems

A large study in Sweden has shown that both children with Type 1 diabetes and their closest family members are at increased risk of mental health problems such as depression, anxiety and stress-related disorders compared with those without the condition. The findings highlight the need for psychological consulting for both children and their families in diabetes care.

The study linked 3.5 million people born in Sweden between 1973 and 2007 to their biological parents, full and half-siblings and cousins.

- More than 20,000 people were diagnosed with childhood-onset Type 1 diabetes and found to have a nearly doubled risk of depression and around 1.6 times higher risk of anxiety and stress-related disorders than those without diabetes.

- Their parents and full-siblings also had elevated risks of anxiety and stress-related disorders, albeit to a lesser degree, while their half-siblings and cousins had no or only marginally higher risks for some conditions.

Since parents-children and full-siblings share more genetic material (around 50%) than half-siblings (around 25%) and cousins (less than 12.5%), the researchers suggest that their study indicates that there could be a genetic component behind this association as well as the simple fact that it is due to the stresses of living with diabetes. However, since this is only an observational study, they cannot conclusively say what causes the associations.

The researchers concluded that their results are of high clinical relevance because they mean that treatment should also involve close family members, not just patients and that more studies are needed to fully understand the underlying genetic and environmental contributions driving psychiatric disorders in Type 1 diabetes." (Diabetes Care, August 2022) Current guidelines from the International Society for Pediatric and Adolescent Diabetes (ISPAD) recommend screening for mental health problems in children with Type 1 diabetes but do not adequately address the needs of family members, who are also at increased risk of mental health problems.

Incidence and characteristics of remission of Type 2 diabetes in routine care settings in England

This study assessed the incidence of remission of Type 2 diabetes in people with a prescription for glucose-lowering medication on April 2018 identified from health records in England and followed until the end of December 2019.

Definitions

- Type 2 diabetes was defined as HbA1c of equal to or above 48 mmol/mol (6.5%) or less than 48 mmol/mol (6.5%).
- Remission of Type 2 diabetes was defined as two HbA1cs less than 48 mmol/mol (6.5%) at least 182 days apart, with no prescription for glucose-lowering medications 90 days before these measurements.

Results

2,297,700 people with Type 2 diabetes were involved and the overall incidence of remission per 1,000 person-years was 9.7 and 44.9 in 75,610 (3.3%) people who were diagnosed less than a year earlier. In addition to shorter duration of diagnosis, other factors associated with higher odds of remission were:

- no prescription for glucose-lowering medication,
- lower HbA1c, BMI, BMI reduction,
- white ethnicity, female gender, and lower socioeconomic deprivation.

The researchers concluded that remission of Type 2 diabetes was generally infrequent in routine care settings but may be a reasonable goal for a sub-group of people who lose a significant amount of weight shortly after diagnosis.

They also recommend that policies that encourage intentional remission of Type 2 diabetes should try to reduce the ethnic and socioeconomic inequalities identified. (Diabetes Care, March 2022)

Liver fat directly raises risk of Type 2 diabetes Research has shown that people who have a smaller pancreas and higher levels of fat in their liver are more at risk of developing Type 2 diabetes.

These findings are a significant step forward in understanding the biological causes driving the development of the condition which could lead to new treatments to allow more tailored ways to help people reduce their risk of Type 2 diabetes and also prevent new cases. Researchers used a statistical method that harnesses genetic and health information to understand cause and effect, in this case to identify whether liver and pancreas size and fat content could play a direct role in causing Type 2 diabetes.

Data from 32,859 people who had had MRI scans were analysed. Liver and pancreas fat and size from these scans were analysed alongside information about genes that affect these factors. The aim was to understand their causal role in the risk of developing Type 2 diabetes.

Results

- People with a genetic make-up that makes them prone to storing fat in their liver are more likely to have Type 2 diabetes indicating that higher liver fat levels directly increase the risk of Type 2 diabetes.
- For every 5% increase in liver fat, the risk of Type 2 diabetes increases by 27%.
- Similarly, having a smaller pancreas was found to have a direct role in causing Type 2 diabetes suggesting that underlying mechanisms associated with reduced pancreatic volume are present before the diagnosis of Type 2 diabetes.



LOTTERY RESULTS

WINNERS OF THE JULY 2022 DRAW ARE:

- 1st prize of £545.76 goes to Emma from Pembury
- 2nd prize of £409.32 goes to Adrian from Peterborough
- 3rd prize of £272.88 goes to Anon from East Lothian
- 4th prize of £138.36 goes to Jeff from Telford

WINNERS OF THE AUGUST 2022 DRAW ARE:

- 1st prize of £567.84 goes to Jean from York
- 2nd prize of £425.88 goes to Louise from Westbury
- 3rd prize of £283.92 goes to Hazel from Norwich
- 4th prize of £141.96 goes to Anthony from Rhyl

WINNERS OF THE SEPTEMBER 2022 DRAW ARE:

- 1st prize of £564.00 goes to Carole from Aylesbury
- 2nd prize of £423.00 goes to Stewart from Leicester
- 3rd prize of £282.00 goes to Debbie from Aberdeen
- 4th prize of £141.00 goes to Anon from Doncaster

Note: The winners of the draws for October, November and December 2022 will be announced in our March 2023 Newsletter and on our website.

A huge 'Thank You' to everyone who supports IDDT through the lottery. If you would like to join in for just £2.00 per month, then give us a call on 01604 622837 or email jenny@iddtinternational.org



SNIPPETS

Active video games may help people with Type 1 diabetes

According to a study, people with Type 1 diabetes experienced the same physiological effects playing active video games or games requiring a lot of body movements as when performing traditional treadmill exercise. They also experienced a healthy reduction in blood glucose with both activities. The researchers suggest that active video games not only take the mind off the exertion but working towards rewards in the game or even competing against friends helps motivate people to keep coming back to do more. (Games for Health Journal, 2021)

Kidney risk higher for African Caribbean adults with Type 1 diabetes

A recent study has found the rate of end-stage renal disease was higher among adults with Type 1 diabetes of African Caribbean ethnicity. Kidney function loss was also higher among adults with Type 1 diabetes of African Caribbean ethnicity. (Diabetes Care, September 2022)

Obesity and the risk of kidney disease in Type 1 diabetes

The rate of obesity among people with Type 1 diabetes increased from 32.6% in 2004 to 36.8% in 2018 and this was linked with greater odds for chronic kidney disease (CKD). The findings also showed that the burden of CKD was higher for people with Type 1 diabetes than for those with Type 2 diabetes after age adjustments. According to the researchers, this suggests "the need for interventions to prevent weight gain and end-stage kidney disease in people with Type 1 diabetes". (The Journal of Clinical Endocrinology & Metabolism, January 2022)

Metformin may cut risk of age-related macular degeneration

Metformin, a Type 2 drug, may help decrease the risk of developing age-related macular degeneration (AMD). The research showed that any metformin use was linked to lower age-related macular degeneration risk, and that metformin in combination with insulin and sulfonylureas provided a protective effect against AMD in people with diabetes. (Ocular Surgery News, July 2022)

Eating disorders may raise diabetic retinopathy risk

A study in the found that having an eating disorder, but not a binge eating disorder, was associated with a higher risk of diabetic retinopathy among people with diabetes. The researcher suggests that a factor may be poor control of blood sugar levels among this group due to inconsistent food intake or deliberately not taking insulin as a weight loss tactic. (Journal of Diabetes & Metabolic Disorders, February, 2022)

Vitamin D3 supplements may reduce HbA1c in Type 2 diabetes

Patients with Type 2 diabetes who took oral vitamin D3 supplements for six months experienced a reduction in HbA1c level compared with those who didn't take the supplements. The findings, published in the journal were based on data from 130 diabetes patients who were on standard metformin therapy at the start of the study. (Frontiers in Endocrinology)



All good wishes for 2023