

INDEPENDENT DIABETES TRUST

Newsletter



SEPTEMBER 2023 Newsletter, Issue 118

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New, FREE booklet from IDDT – 'Diet and Diabetes'

This booklet provides you with information about various diets, food labelling, weight loss, the importance of food groups and much more.

This new booklet is designed to help you through some of the confusing and complicated aspects of diet and the reasons why what, and how much we eat, are so important for people with Type 1 or Type 2 diabetes. It provides you with information about various diets, food labelling, weight loss, the importance of food groups and much more.

There are many different diets and this booklet looks at the most common ones but it is also important that we recognise the importance of carbohydrates for people with diabetes.

As we know, 'Diet' is one of the three key elements to managing diabetes. IDDT believes in the right of everybody to have an informed choice as to how their diabetes is managed and that includes diet. With this in mind, IDDT is not an advocate of any particular diet or the automatic superiority of one diet over another. IDDT believes that choice of diet is a matter for the individual, wherever possible, and that decisions about choice of diet may change, dependent on factors such as lifestyle, belief, culture and health. As such, this booklet is not about giving advice but about giving information. **For your free copy, contact IDDT.**



Don't forget IDDT's Get Together on Saturday, 30th September 2023!

An invitation and copy of the programme and booking form for IDDT's Annual Event on Saturday, 30th September 2023 was sent to all IDDT members in August. It is being held at our usual venue, the Kettering Park Hotel and Spa. Our speakers include:

Dr Mayank Patel, consultant in diabetes at University Hospital Southampton NHS Foundation Hospital where he has been clinical lead for diabetes, run the diabetes renal clinic, worked tirelessly to improve the Diabetes Inpatient Service, foot clinics and adult insulin pump services.

Samina Ali who works as an advanced pharmacist with a special interest in diabetes. She runs diabetes clinics in one of her practices in Glasgow South and also at a practice in Ayrshire & Arran. She is a chair of the Diabetes Specialist Interest Group and won a Quality in Care Diabetes award last year.

Jane Cheetham and her colleague from Abbott Laboratories who will be speaking about the FreeStyle Libre 2 and have a stand

where your questions can be answered. I am sure the discussion groups and other guests will be interesting for you.

We start the day with our Annual General Meeting and this is the opportunity for members to nominate new Trustees. If you would like to nominate someone, then please put this in writing to IDDT along with the agreement of the person you are nominating. Please take a look and you will see the programme is a combination of speakers and discussion groups so includes something for everyone and as ever, it is an opportunity to meet other people who live with diabetes.

We do hope as many of you as possible will join us on the day, teas, coffees and a meal at lunchtime are provided. Please do complete the booking form and return to IDDT as soon as possible. If you have any questions or would like another booking form, don't hesitate to give IDDT a call on 01604 622837 or email enquiries@iddtinternational.org



A charity supporting and listening to people who live with diabetes

Charity Number 1058284 Registered Number 3148360

Update from Ukraine

As we reported in our June issue, our March consignment of 103 boxes was sent to Ukraine before Easter and above is some of the children receiving sweets and knitted toys and hats for Easter.

Everything we sent reached the people in need, mostly people in Kherson and Kharkiv areas. It is especially important that the help is reaching people in the villages where people can't afford expensive medicine and equipment.

One person reported to us that his grandma is 83 years old and her monthly pension is 51 pounds. Most of the elderly people in the villages are in the same position.

He asked one lady why she doesn't monitor her blood sugar level regularly and she answered, that test strips are expensive for her and she economises on them...

He tells us that this is just one more example of how great your help is...

At the time of writing, we are preparing for our next consignment of over 80 boxes to be sent to Ukraine. A huge thank you to everyone who is helping IDDT to help people with diabetes in Ukraine, to the drivers who transport the boxes and the people in Ukraine who are enabling this help to reach the people in need.



Lottery Jackpot!

As a thank you to our members and Lottery players and as a celebration that 2024 is 30 years since IDDT formed, we are having JACKPOT Lottery draw.

The prizes will be:

- **First prize: £1,000**
- **Second Prize: £750**
- **Third prize: £500**
- **Fourth prize: £250**

The Jackpot Draw will take place in early January 2024. If you are already a Lottery player, then you will automatically be entered into the JACKPOT. However, if you would like to join the Lottery to have a chance of winning the JACKPOT, you still have time to set it up, just contact IDDT.

Tel: IDDT on 01604 622837, email karl@iddtinternational.org or write to IDDT, PO Box 294, Northampton NN1 4XS

Patient Choice – is it still there?

Hospital Treatment

You are being given choice! In May the Government announced new plans to help to cut NHS waiting lists by enabling patients to choose where they receive their NHS care. A letter has been issued by the NHS to local areas stating that patients are to be offered this choice when clinically appropriate.

- **Choose from 5 healthcare providers** - after speaking with their GP, patients will be able to view information for up to five healthcare providers, filtered by distance, waiting times and quality of care. They will then be able to choose where they go for treatment using the NHS App or website, based on their own circumstances.
- **Patients already on waiting lists will also benefit** - from October, those who have waited more than 40 weeks for an appointment but have not yet been given a treatment date, will be asked if they want to switch hospitals, including ones with a shorter waiting list (if possible) and clinically appropriate.
- **A new public awareness campaign** – this will encourage patients to exercise their right to choose. Guidance has been provided to GP practices to support them to offer choice with training available in IT systems to make referrals.



New commissioning advice for meters, testing strips and lancets – no choice?

New commissioning advice for meters, testing strips and lancets – no choice?

As we reported in the June Newsletter, there are new commissioning recommendations on blood glucose and ketone meters, testing strips and lancets after a national assessment of them. The stated aim is 'to support access to high-quality, cost-effective products so that people with diabetes can monitor and manage their condition appropriately'. We are told this is because the NHS is taking steps to reduce variation in access to services and patient outcomes including improving the treatment and outcomes for people living with Type 1 or Type 2 diabetes.

As part of the announcement, Professor Partha Kar, NHS England's National Speciality Advisor for Diabetes, said: *"The new commissioning guidance will ensure that people living with diabetes have continued access to clinically effective meters and test strips and underlines the NHS's commitment to providing the best quality treatment and care at the lowest possible cost to the taxpayer."*

"All Integrated Care Boards (ICBs) will be instructed to adopt the new guidance"

This statement forms part of the announcement which leads to some obvious concerns:

- It seems that people actually living with diabetes and using these items, are not being given a choice of meters, test strips or lancets.



- If people are not using the ones now recommended, will their meters etc be changed without being given a choice even though they are happy with the ones they are using and probably have used them for many years? We know that has happened already in some areas.
- While being in total agreement with equal access, why does this mean that patients have to be denied choice?
- What is the meaning of 'providing the best quality treatment at the lowest possible cost to the taxpayer'? Does it mean the most cost effective but not necessarily the best?
- Finally, when the NHS started in 1948, people (taxpayers) were given the right of choice of treatment. At no point has this right been revoked or if it has, we, the public, haven't been told, so how can the NHS **instruct** ICBs to follow these recommendations without giving patients a choice? Are today's decision makers aware that patients have rights under the NHS and one of the most important rights is the right to a choice of treatment and care?

The details of the recommended meters and other items can be found at the following link: www.england.nhs.uk/publication/commissioning-recommendations-blood-glucose-and-ketone-meters-testing-strips-and-lancets/

Accuracy of blood glucose meters and continuous glucose meters

As we are aware, it is easier to manage your blood sugars well if you know what your blood sugar level is. Thus, people with Type 1 or Type 2 diabetes are reliant on devices that measure these levels to make important decisions about insulin doses, food and exercise. So as these measurements are so important, we have to ask how accurate the results from the various devices are, what is the margin for error and are some more accurate than others?

The accuracy of blood glucose meters

- The International Organization for Standardization (ISO) guidelines state that blood glucose meters should provide results which fall between the upper and lower error bounds 95% of the time: Within ± 0.83 mmol/L of laboratory results at concentrations of under 4.2 mmol/L.
- In the US, the blood glucose meters are allowed the following measurements $\pm 15\%$ of a lab result, 95% of the time and within $\pm 20\%$ of a lab result 99% of the time.

Surprising!

We tend to think that the reading our meter gives is exact, so this acceptable spread of results may be a surprise. Many people have taken readings from two different meters and been shocked at the variation in the results but they may well be within the tolerance standards. It is worth remembering:

- The higher your blood sugars are, the greater the range of results gets (the less accurate).
- It is difficult for these meters to measure very high and very low blood sugars accurately which is why these results show as HIGH or LOW.
- Other things can have an impact on accuracy: dirty fingers, test strip conditions, humidity and temperature extremes and high altitude.

With these factors in mind, it may be worth considering the finger-prick blood sugar test as a ballpark figure rather than an exact one. In addition, it is worth remembering that if you feel a hypo coming on (low blood sugar) you should trust your symptoms even if your meter says otherwise and err on the side of caution and treat the hypo.

The accuracy of continuous glucose meters (CGM)

Continuous glucose monitoring has many advantages over using blood glucose meters – fewer finger-pricks, constant updates, trend arrows,

alarms and remote sharing, but the question that arises is: is convenience being traded for accuracy?

The main difference to be aware of is that the CGM doesn't measure blood glucose but measures interstitial fluid in the cells. The interstitial fluid carries nutrients, including glucose, from the blood vessels but it doesn't have the same amount of glucose as the blood. Therefore, the CGM has to apply an algorithm to convert the interstitial fluid results to predict them as blood sugar results. This takes time, so when the CGM gives results, they are really what your blood glucose levels were 10 minutes ago. There are other factors to take into account:

- As a result of the differences between the measurements glucose in interstitial fluid and in blood, the differences are greater when blood sugars are changing rapidly.
- The sensors for CGMs are less accurate during their first 24 hours of use, so inaccuracies can be expected on the first day.

Measurement of CGM accuracy

The accuracy of CGM is mostly measured by Mean Absolute Relative Difference (MARD) which involves taking CGM readings and comparing them to a highly precise laboratory blood glucose measurement.

MARD is reported as a percentage and nowadays are more accurate than they used to be and are usually under 10% which means that the CGM is on average within 10% of the precise lab measurement. However, MARD has flaws:

- It doesn't tell you the accuracy in predicting trends,
- It does not indicate how accurate a CGM is during rapid changes in blood sugars.

Which is more accurate – the CGM or glucose meter?

As CGM systems will usually prompt people to calibrate the CGM sensor using a finger-prick blood glucose meter, it is understandable that many people believe that blood glucose meters are more reliable than CGMs. However, as there is variability amongst commercial blood glucose meters, there is no easy answer to the question of which device is the most reliable.

There were studies carried out in 2017 and 2018 and the latter compared MARDs using CGMs and blood glucose meters using a single consistent lab measure. Some insights can be drawn from these:

- The best blood glucose meters are still more accurate than any CGM. The latest Abbott FreeStyle Libre 3 and Dexcom G7 report MARDs of 7.9% and 8.7% respectively but the 2017 study found six meters that were better than this standard in lab conditions.
- Lower quality blood glucose meters are probably worse than any CGM and this same study identified 10 blood glucose meters with MARDs above 13%, far worse than any CGM on the market today.

Can we draw any conclusions?

The best blood glucose meters are probably more accurate than CGMs especially when blood sugar levels are changing rapidly but the worst meters can be very inaccurate. CGM MARD

results may be more trustworthy than blood glucose meters because CGM accuracy has come under greater regulation than those for blood glucose meters. Both Abbott and Dexcom now claim to have developed the world's most accurate CGMs and while we may not know which one is actually the best, the important thing is that there is a 2021 study that showed they are both accurate enough to remove the need for finger-prick tests for the safe and effective management of diabetes. The other important message from this is that whatever your CGM or blood glucose meter tells you, this is a ballpark figure and your real level could be above or below this but is usually within 15% of the real level.

What's New?

Reader for FreeStyle Libre 3 approved in US

For people who are told that they have to have a mobile phone to use a FreeStyle Libre, it is worth knowing that the latest expected version, FreeStyle Libre 3, has been granted clearance by the FDA in the US for a standalone reader tool for its continuous glucose monitor. The handheld device works with a sensor and allows patients with diabetes to view their real-time glucose readings. (14th April 2023)

Once-weekly basal insulin for Type 2 diabetes on the way

Two new studies investigating once-weekly insulin icodec suggest superior glucose control when compared with the once-daily basal insulins degludec (Tresiba) and glargine (Lantus) in people with Type 2 diabetes who have not previously used insulin. In both trials, primary endpoints of superiority and noninferiority in HbA1c reduction were achieved, and in ONWARDS 1, which compared icodec and Lantus, patients spent more time in target blood glucose range. One independent commentator said that an ideal candidate for once-weekly insulin "is someone who's already on once-weekly glucagon-like peptide-1 (GLP-1) agonist. Then, taking your GLP-1 [agonist] and your basal insulin at the same time once a week makes a lot of sense." Insulin icodec is made by Novo Nordisk who plan 6 more trials comparing the efficacy and safety of once weekly insulin icodec with once-daily basal insulins. It has been submitted for regulatory review in the US, Canada, Europe, China, Australia, Switzerland and Brazil with decisions anticipated in the first half of 2024. (Presented at the American Diabetes Association (ADA) 83rd Scientific Sessions, 2023)

Call for ultra-processed food packaging to feature warnings similar to cigarettes ADD

In June this year, a number of MPs called for ultra-processed foods to carry a warning similar to those on cigarette packs because they have been linked to poor health outcomes and is also addictive. Popular examples of ultra-processed foods are ready meals, pizza, crisps, fizzy drinks, fruit-flavoured yoghurts and ice cream or can be defined as foods which contain ingredients we would not add when cooking at home and contain:

- high levels of added fat, sugar and salt,
- are low in protein and fibre,
- contain artificial colourings, sweeteners and preservatives.

The proposal is that the food labelling laws should be changed so that ultra processed foods should carry a label warning in a typeface large enough to be read without the use of a magnifying glass, so people know what it is they're buying before they purchase it. The MPs made the point that awareness of what ultra-processed food is, is actually fairly low but they are familiar foods in our shopping trolleys. Changes such as this have got to be better for people with diabetes and the increases that we are seeing.

Note: Wales will introduce new laws in 2024 to be rolled out across Wales by 2025. This will restrict the placement and price promotion of products high in fat, sugar and salt to improve diets and help prevent obesity by restricting the ways foods high in fat, sugar or salt can be promoted. The legislation will not apply to all high fat, sugar and salt products but it will target food and drinks that contribute most to obesity.

A wearable bionic pancreas

The FDA in the US has approved a wearable bionic pancreas that automates insulin delivery to manage Type 1 diabetes for people aged six years and older. The iLet Bionic Pancreas combines an insulin infusion pump with algorithm-controlled dosing decision software and is now commercially available in the US. When paired with a Bluetooth-enabled glucose monitor, the iLet can deliver tailored insulin doses every five minutes, based on calculations of current and past glucose levels and the body's reaction to past insulin deliveries. It is small enough to be placed in a pocket or clipped to a bra strap and users just need to enter their weight to get started and the system will then use 'continuous learning' to regulate blood glucose levels with minimal input.

Regeneration of insulin-producing beta cells

The programme to regenerate insulin-producing beta cells is using a recombinant protein which modulates the Wnt/ β -catenin signalling pathway and which, if successful, has potential to be the first disease-modifying therapy for Type 1 diabetes.

DiogenX, a biotech company leading the programme, have demonstrated efficacy in preventing and reversing diabetes in in vivo models (in people) of Type 1 diabetes and in pre-clinical trials achieved a first proof of principle with a significant increase in functional insulin-producing human beta cells. The data show potential for broad clinical use as monotherapy and in combination with insulins and/or other therapies targeting pancreatic β -cells. DiogenX is working to use the patient's remaining endogenous beta cells to increase insulin production and modify the course of diabetes, potentially eliminating the need for exogenous (injected) insulin in some people.

WHO advice – don't use non-sugar sweeteners for weight loss

In May this year, the World Health Organization (WHO) released a new guideline on non-sugar sweeteners, which recommends against their use for controlling weight or reducing the risk of noncommunicable diseases. This is based on the findings of a systematic review of available evidence which suggests that use of non-sugar sweeteners does not provide any long-term benefit in reducing body fat in adults or children. The review also suggests that there may be potential undesirable effects from long-term use of these sweeteners, such as an increased risk of Type 2 diabetes, cardiovascular diseases and mortality in adults.

The above recommendation applies to everyone except those with pre-existing diabetes. It includes all synthetic and naturally occurring or modified non-nutritive sweeteners that are not classified as sugars and found in manufactured foods and beverages, or sold on their own to be added to foods and drinks by consumers. Common sweeteners include acesulfame K, aspartame, advantame, cyclamates, neotame, saccharin, sucralose, stevia and stevia derivatives. Sweeteners have no nutritional value.

The WHO recommends that non-sugar sweeteners should be replaced with others ways to reduce free sugars intake, such as consuming foods and drinks with naturally occurring sugars, such as fruit, unsweetened food and drinks and that people should improve their health by reducing the sweetness of the diet, starting in early life.

- The recommendations do not apply to personal care and hygiene products such as toothpaste, skin cream, and medications, or to low-calorie sugars and sugar alcohols which are sugars or sugar derivatives.
- There has been information in the public domain that aspartame can cause cancer. However, WHO's food additive committee has reviewed existing evidence and concluded that adults can safely consume up to 40mg of aspartame per kilo of body weight, meaning that current recommended daily limits of consumption remain the same. This is equivalent to 14 cans of Diet Coke a day!

Hypo unawareness is more common than previously thought

Hypoglycaemia unawareness, also called impaired awareness of hypoglycaemia or simply loss of hypo warnings, was considered a complication mostly seen in people with Type 1 diabetes. However, the increased use of continuous glucose monitors (CGMs) has shown that it also affects many people with Type 2 diabetes who use insulin or other medicines that can cause hypos.

People with Type 1 or Type 2 diabetes are advised to keep their blood glucose levels as near to the normal blood glucose levels as possible. If the blood glucose levels drop below normal, whatever the cause, then this is called hypoglycaemia (a hypo).

Normal blood glucose levels in people without diabetes are between 4 and 7mmols/l. Hypoglycaemia is usually said to occur at 3.8mmols/l and so the recommended lower level is 4mmols/l – hence the recommendation to people with diabetes that “4 is the Floor”.

Some publications say that hypoglycaemia does not occur until blood glucose levels are below 3.5 or even 3.0mmols/l but there is research that shows that the ability to function may be impaired by blood glucose levels of 3.8mmols/l and lower.

Useful definitions of hypoglycaemia:

Mild: a hypo that is easily treated by the patient by the intake of a sugary drink or food, often referred to as ‘being low’.

Moderate: one where someone else, spouse, friend or parent, has to intervene and give the sugary food/drink because the person with diabetes is confused or even losing consciousness

Severe: one that usually means unconsciousness and maybe accompanied by a convulsion /seizure.

Hypo warning signs

When the blood glucose levels start to drop at the stage of mild hypoglycaemia, there are usually warnings signs/symptoms of the impending hypo. These are usually:

- Sweating
- Trembling
- Pallor
- Weakness
- Hunger

The body reacts to low blood glucose levels by the production of counter-regulatory hormones, mainly adrenalin and glucagon - often called the ‘fight and flight’ hormones that the body releases when there is any danger. Hypoglycaemia is a danger so these hormones give the warning symptoms of an impending hypo and trigger release glucose from the liver.

If the mild hypo is not treated for any reason, then the blood glucose drops further and the symptoms of this are less obvious to the person with diabetes when the signs are usually:

- Confusion
- Irritability
- Behavioural changes such as aggression excitement or violence
- Sensory changes such as blurred vision

These symptoms are much harder to recognise and can be missed so they remain untreated which can lead to a severe hypo and unconsciousness.

What is hypoglycaemia unawareness?

Hypoglycaemia unawareness is where people treated with insulin or Type 2 drugs that can cause hypos, have reduced or total loss of the above warning symptoms. (Metformin is the only drug used to treat Type 2 diabetes that does not cause hypos.)

- **Total loss of warnings** - is where the warning symptoms of an impending hypo are not present and so when blood glucose levels drop there are no warning signs that the person must eat. This makes the likelihood of severe hypos much greater. People with loss of warnings have to rely on the help of others.
- **Partial loss of hypo warnings** - is when warning symptoms are present sometimes and not others. In some ways this is more difficult than total loss of warnings because the person may not even be aware that they have some loss of warnings and so have unexpected moderate or severe hypos. This is particularly dangerous when driving.
- **Reduced warning symptoms** – is where the early warning signs of hypos are reduced or missing and the blood glucose

drops to the stage where the symptoms are less obvious (confusion, behavioural changes etc). This means that the person may require the help of others.

However, with the use of continuous glucose monitoring, there is evidence that these percentages may be higher.

What are the possible causes?

- Hypos are not caused by diabetes but by the insulin or drugs used to treat it and frequent hypos themselves can cause loss of warnings.
- Having diabetes for many years (20 or 30 years) can result in loss of warnings.
- A change in insulin type can cause a change in hypo warnings.
- Autonomic neuropathy (damage to the autonomic nervous system) is a complication of diabetes and can cause loss of warnings.
- In some people genetically produced synthetic 'human' and analogue insulins can cause more severe and more frequent hypos and reduced or loss of warning symptoms.
- If you don't feel that your blood sugars are low but you are having frequent hypos, then you may have some loss of warnings.

How common is hypo unawareness?

There are estimates that about 25% of people who have Type 1 diabetes experience hypo unawareness and it may also occur in approximately 10 to 15% of people with Type 2 diabetes who use insulin or drugs that can cause hypos.

Managing hypo unawareness

- It is important that people who have loss of warnings have glucagon available and someone around them that knows how to administer it.
- There is research that shows that total avoidance of hypos for several weeks can re-set the body so that warning symptoms return.
- There hasn't been good evidence that insulin pumps can reduce hypoglycaemia compared to injections. However, if pump users are administering the doses at the right time, they're probably having less risk of hypoglycaemia and less likely to develop unawareness.
- The wider use of continuous glucose monitors because they alert people if their blood glucose level gets too low.

People with diabetes are often reluctant to tell their healthcare professional of their hypos and loss of warnings because of the legal implications, such as loss of driving licence, but if this is not discussed, then they are missing out on advice that can help to improve the situation.

Note: IDDT has updated its booklet 'Hypoglycaemia', if you would like a copy, call IDDT on 01604 622837, email enquiries@iddtinternational.org or write to IDDT, PO Box 294, Northampton NN1 4XS.

Autoimmune disorders found to affect around 1 in 10 people

A population-based study of 22 million people published in *The Lancet*, shows that autoimmune disorders now affect about 1 in 10 people. The study also highlights important socioeconomic, seasonal and regional differences for several autoimmune disorders which may provide new possible causes behind these diseases.

As we are aware, autoimmune diseases occur when the usual role of the immune system in defence against infections is upset so that it mistakenly attacks normal healthy cells in the body. Common examples of autoimmune

diseases include rheumatoid arthritis, Type 1 diabetes and multiple sclerosis but there are more than 80 known types of autoimmune diseases.

Some autoimmune disorders, including Type 1 diabetes, are reported to have increased over the past several decades. The causes of this could possibly be common environmental factors or behavioural changes but really the causes are unknown and research is needed. However, because many autoimmune conditions are rare and there are so many, it is difficult to carry out sufficiently large studies to provide answers.

The study carried out by UK Universities, used a very large dataset of anonymised electronic health records from 22 million people to investigate 19 of the most common autoimmune diseases. The authors looked at:

- whether cases of autoimmune diseases are rising over time,
- who is most affected by them,
- how different autoimmune diseases may co-exist with each other.

They found that, taken together, these 19 autoimmune diseases studied affect about 10% of the population –13% of women and 7% of men, which is higher than previous estimates. In addition, they found evidence of socio-economic, seasonal, and regional disparities among several autoimmune disorders.

The researchers suggest that such variations are unlikely to be due to genetic differences alone but may be due to the involvement of

potentially modifiable risk factors such as smoking, obesity or stress that are known to contribute to the development of some autoimmune diseases.

Finally, the research also confirmed that in some cases a person with one autoimmune disease is more likely to develop a second compared to someone without an autoimmune disease. This could be due to some autoimmune conditions sharing common risk factors.

We know that this is quite common in people with Type 1 diabetes but, for example, in the study, multiple sclerosis stood out as having low rates of co-occurrence with other autoimmune diseases, suggesting a distinct pathophysiology. The need for research into autoimmune conditions is great and has been underfunded compared to other research so it is important that research in these areas is increased with the aim of finding a better understanding of the causes.

Addison's diseases and diabetes

It is estimated that about a third of people with Type 1 diabetes have at least one other autoimmune condition. Thyroid disorders and coeliac disease are two of the most common ones but although Addison's disease is rare, it is significantly more prevalent in people with Type 1 diabetes and is sometimes called primary adrenal insufficiency (PAI).

What is Addison's disease?

The adrenal glands are small structures located on top of the kidneys which produce multiple hormones and other substances and their function is vital to good health. Addison's disease occurs when the adrenal glands are not working properly. One of the most common causes and the cause most relevant to people with diabetes, is a direct autoimmune attack. Other possible causes include cancer and improper signalling from other organs such as the pituitary gland.

In Addison's disease, the adrenal glands do not properly secrete hormones such as cortisol and aldosterone:

- **Cortisol** regulates metabolism, blood pressure, increases blood sugar levels, reduces inflammation, regulates bone growth, and regulates circadian rhythm.
- **Aldosterone** regulates blood pressure and electrolyte balance.

The symptoms of Addison's disease

It can be difficult to diagnose as the symptoms usually appear gradually and it can be over months. The symptoms can also vary and may

seem unrelated which may cause people to delay seeking treatment.

The major symptoms include the following:

- Extreme fatigue or lethargy
- Loss of appetite
- Weight loss
- Hypoglycaemia
- Low blood pressure
- Skin darkening
- A craving for salt
- Nausea, diarrhoea or vomiting
- Muscle and joint pain
- Depression or irritability
- Body hair loss or sexual issues

A variety of tests are used to confirm a diagnosis of Addison's disease. Blood tests measure the concentration of electrolytes and some adrenal hormones in the body and a stimulated test can be used to estimate the adrenal glands' ability to secrete cortisol.

Treatment

Usually, Addison's disease is treated through prescription hormones such as hydrocortisone, prednisone, cortisone acetate, or potentially fludrocortisone - pills that are usually taken twice daily.

Women with Addison's may also be prescribed dehydroepiandrosterone, which may help mood and sex drive although the benefit of this hormone supplementation is controversial. If hormone levels become dangerously low (such as before diagnosis), this is called adrenal crisis and immediate medical care is needed.

This will usually involve an IV injection of hydrocortisone, saline and dextrose to restore blood sugar, blood pressure and potassium levels to where they should be. If you have this happen to you, be sure to tell them if you have Type 1 diabetes because your

care will need to reflect this. People with Addison's disease are usually given a prescription for an emergency kit with an intramuscular steroid injection that can be given at home in order to prevent adrenal crisis.



Vitiligo – another autoimmune condition

Vitiligo is a chronic autoimmune disorder that causes patches of skin to lose pigment or colour. This happens when melanocytes, skin cells that make pigment, are attacked and destroyed, causing the skin to turn a milky-white colour. Vitamin D is an essential hormone synthesised in the skin and is responsible for skin pigmentation. Low levels of vitamin D have been observed in people with vitiligo and in people with other autoimmune diseases.

Vitiligo does not pose a serious threat to health and it does not affect life expectancy but it can result in physical complications, such as eye issues, hearing problems, and sunburn. People with vitiligo also tend to be more likely to have another autoimmune disease, such as thyroid disorders and some types of anaemia.

Vitiligo can appear at any age although often starts before the age of 20, it affects about 0.5% to 1% of the population, its prevalence is similar in both genders and in all races. Vitiligo can be challenging to live with, mainly because of the way the skin looks causing people to be self-conscious, have feelings of social stigma, emotional stress and even depression. However, people with vitiligo are usually in good health and live normal lives and if it is not associated with symptoms that cause physical discomfort or complications, the condition may be left untreated.

There are two types of vitiligo:

- non-segmental vitiligo where patches tend to appear on both sides of the body like both knees or both hands,
- segmental vitiligo where people tend to see rapid colour loss on one side of the body.

Signs and Symptoms of Vitiligo

The biggest sign that someone may have vitiligo is the appearance of light or "depigmented" spots on the skin. The pale patches are areas with little or no melanin, the skin's natural pigment.

These can show up anywhere on the body, although they may first appear in areas that receive a lot of sun exposure, such as on the face, arms, feet, and hands.

The condition usually begins with small white patches in a localised area and if the vitiligo progresses, it can gradually spread across the body over time. Other signs of vitiligo can include:

- Hair turning prematurely grey or white,
- Eyelashes or eyebrows losing colour and turning white,
- Change of colour in the retina of the eye,
- Inflammation of the ears or eyes, leading to hearing loss and vision problems.

Where skin spots appear, how widespread the condition becomes, and how much it will progress, vary from person to person.

Treatment

In April 2023, the European Commission granted marketing authorisation for ruxolitinib (Opzelura) cream 15 mg/g for treating non-segmental vitiligo with facial involvement in people 12 years and older. The EC approval covers all 27 European Union Member States, Iceland, Norway, and Liechtenstein. In July last year, it was also approved by the FDA in the United States for non-segmental vitiligo.

Ruxolitinib, a Janus kinase (JAK) inhibitor, is the first and only approved treatment in the EU that supports repigmentation in eligible patients with non-segmental vitiligo. It is approved for topical use twice a day to depigmented areas up to a maximum of 10% body surface area.

There were no serious treatment-related adverse events related to ruxolitinib cream and the most common adverse reaction was acne at the application site.

Overhaul of Primary Care was announced in May by the Government and NHS

On 9th May 2023, Steve Barclay announced an overhaul of primary care across England with the aim of making it easier for patients to contact their GP and end the 8am rush.

How will it work?

- Patients will be able to find out exactly how their request will be handled on the day they call.
- Practices will be given £240 million this year to embrace the latest technology. Old analogue phones will be replaced with modern systems and easy to use online tools to ensure patients get the care they need as soon as possible.
- This will mean when patients contact their practice online or over the phone, they will know on the day they make contact how their query will be managed, rather than being told to call back later. Rather than receiving an engaged tone, patients will receive a queue position, a call back option and their call can be directly routed to the right professional. The phone system will also be integrated with the clinical systems so practice staff can quickly identify patients and their information from phone numbers.

If the patient need is urgent, they will be assessed and given appointments on the same day.



If it is not urgent, appointments should be offered within two weeks or patients will be referred to NHS 111 or a local pharmacy.

Care navigators

- There will be a major expansion of the role of receptionists to become expert “care navigators”. They will direct patients to other professionals within the general practice or other medical professionals such as community pharmacists who can best meet their needs. Successful care navigation can help direct 40% of requests more effectively and speeds up appointments for those who need them.
- The government will fund 6,500 care navigator training places – one member of staff per practice who can then pass on the training to colleagues. Care navigators will help assess, prioritise, respond and assist. They can help make sure those who want to see a named GP or preferred member of staff can do so while those who are happy to see a duty doctor can also do so.

Pharmacists increasing role

Separately, it is being proposed that the role of community pharmacists is to be expanded so that they can prescribe drugs for some conditions, such as sore throats, ear ache and urinary tract infections.

The aim is to further reduce the number of patients requiring GP appointments and they will receive £645 million to carry out this extra work.

This has raised some concern from pharmacists as some already financially in difficulties with some are closing down – since 2015, around



800 pharmacies have closed due to rising costs. It has equally received concerns from GPs who maintain that the real problem is a shortage of GPs with the government unlikely to meet its target of an increase of 6,000 new GPs by 2025.

Other Government announcements for changes GP practices

There have been a lot of Government announcements in relation to changes to our various health systems. Some will take time to be brought in, so don't expect changes straight away, but with an election looming in the next year or so, it does raise the question of whether they will happen at all, nevertheless, we should know about them!

Improvement in repeat prescribing to avoid overprescribing

The Royal Pharmaceutical Society (RPS) has been commissioned by NHS England to work with The Royal College of General Practitioners (RCGP) to develop tools and guidance to help primary care to improve the consistency of repeat prescribing for better patient care.

In the NHS England plan guidance is to reduce overprescribing by making 20 recommendations to ensure patients get the right treatment for their needs.

Repeat prescriptions make life easier for patients, GP practices and pharmacies but problems and waste can occur if the repeat prescription process is not designed well or if patients' medicines are not reviewed on a regular basis. The intention of the guidance and training is to ensure that repeat prescribing systems work well and reduce inefficiency and waste and, most importantly, keep patients safe. The final toolkit will be published in May 2024.

Six new ambulance hubs and 42 new and upgraded discharge lounges

These hubs are opening at hospitals across the country, to help cut emergency care waiting times. The new facilities are backed by the £50 million investment that was announced in January to help free up hospital beds and cut down on waiting times ahead of next winter. Four of the new hubs located in Telford, Leicester, Middlesbrough and Doncaster are already live and providing additional urgent and emergency care capacity.

Two further hubs will come into use this summer in Romford and a second in Leicester. Patients who are due to be discharged that day but are waiting for medication or transportation will wait in discharge lounges – helping to free up beds and reduce waits for patients waiting to be admitted from A&E. These dedicated rooms will provide 439 additional beds, 364 chairs, and 44 extra trolleys in hospitals.

Wales – The Quality Statement for Diabetes

The Welsh Government has published new requirements for the NHS in Wales to improve diabetes care and better support people to manage their condition. It sets out key service priorities and national expectations for the development of better diabetes care placing an emphasis on good supportive care by:

- (i) helping people to learn how to manage their condition well by taking part in educational programme,
- (ii) having routine support from healthcare services,
- (iii) improving access to diabetes technology to help people manage the condition.

Scotland – the Scottish Government has invested a further £350,000 to increase the distribution of the closed loop system

Part of the new approach is the roll out of support to people who are at highest risk of diabetes and the introduction of new remission services for newly diagnosed people who may be able to reverse the development of the condition. Closed loop systems that reduce the risk of complications for people with Type 1

diabetes will become more widely available thanks to additional funding.

The investment will see a dedicated team created by the national Centre for Sustainable Delivery at NHS Golden Jubilee to support NHS health boards to rollout the technology faster and more efficiently across Scotland.

Bits and Pieces

Semaglutide update!

We reported on Semaglutide in our last Newsletter but not unsurprisingly, and the fact that it is sold in as two different drugs – one to treat Type 2 diabetes and one as a weight loss drug there is confusion. Novo Nordisk's versions are Ozempic for Type 2 and Wegovy for weight loss.

Since our report, there has been more publicity because there are ongoing global shortages of both Wegovy and Ozempic. For people already using Ozempic, there are several alternative GLP-1 analogues available that work in similar ways to Ozempic and your healthcare team will be able to advise about these.

Novo Nordisk bought prescribers over 450,000 meals and drugs to promote Ozempic and similar drugs!

We also reported that the Observer alleged that Novo Nordisk had given millions to obesity charities, NHS Trusts and health professionals etc in what the Observer described as "an orchestrated PR campaign". The company's membership of the Association of the British Pharmaceutical Industry was also suspended for serious breaches of its Code of Practice. More recently, Federal records in the United States show that Novo Nordisk spent \$11 million on meals and travel for thousands of doctors last year as part of its promotion of Ozempic and other GLP-1 drugs for diabetes. Hard to believe but:

- they bought 457,000 meals to educate doctors and prescribers about these GLP-1 agonists at a cost of \$9 million,
- over 12,000 prescribers had food paid for by Novo a dozen times last year and more than 200 recorded more than 50 meals and snacks paid for by the company,
- Novo Nordisk isn't just paying for meals – it spent \$2 million flying doctors to London, Paris, Orlando and Honolulu in 2022 to promote GLP-1s.

Conflict of interest experts say that even small payments can influence doctors to prescribe their drugs. We need to be aware of how the drugs we take are marketed!

Latest results of National Diabetes Inpatient Safety Audit

The latest National Diabetes Inpatient Safety Audit (NDISA) published in April this year has shown that only 72% of healthcare providers are currently providing insulin training to staff.

In addition, it showed that only 27% of inpatient care providers have a system to identify people with diabetes when they are admitted to hospital.

The Audit has published four recommendations to improve hospital care for people living with the condition to include:

- Healthcare providers should have a multidisciplinary diabetes inpatient team and be working towards providing base-level diabetes cover at weekends.
- Healthcare providers should have networked blood glucose meters to alert staff when recorded glucose levels are out-of-range.
- All participating organisations should have a policy to support diabetes self-management in hospital.
- All NHS Trusts in England and Local Health Boards in Wales should participate in NDISA data collection.

Accreditation programme to improve diabetes inpatient care in UK

In addition to the above, an accreditation programme to improve the quality of diabetes inpatient care across the UK was launched in May, 2023.

The Diabetes Care Accreditation Programme (DCAP) aims to improve the care of people with diabetes in hospitals by setting quality standards and measuring performance through external peer assessment. Hospital inpatient services are being encouraged join this programme, to help ensure people with diabetes receive the best possible care in hospital.

Diabetes inpatient care varies considerably across hospitals, regions and nations and it is not at all unusual for people with diabetes to voice concerns about how their condition is managed in hospital. Hopefully, the DCAP will allow hospitals to look in detail at how they provide diabetes care and how they compare against others.

The new DCAP standards combine recommendations from national guidance were developed by the Joint British Diabetes Societies Inpatient Group (JBDS-IP), the Association of British Clinical Diabetologists, the Diabetes Inpatient Specialist Nurse UK group and people living with diabetes.

Activity snacking may help with Type 1 diabetes

This Diabetes UK funded research hit the newspaper headlines. This was surprising for two reasons, firstly the research involved only 32 people so can we really draw meaningful conclusions from such a small number when there are nearly half a million people with Type 1 diabetes in the UK alone? Secondly, the word 'snacking' usually implies eating but in this case activity snacking means regularly taking walking breaks for 3 minutes over a 7 hour period. The 32 people completed two seven-hour sessions of sitting down.

In one session they remained seated and in the other they broke up the seven hours with three-minute bouts of light intensity walking (at their own pace) every 30 minutes. For example, they walked while taking phone calls or set alarms to remind them to take walking breaks and according to the researchers,



this helped to improve their blood sugars.

To be fair, the researchers said they hope to conduct larger studies over longer times.

Worth noting that the Journal, Diabetologia, published similar research in 2014 using the same term of 'activity snacking' and this time in only 27 people!

School leavers will be able to start working as doctors without going to university under NHS plans to fix staffing crisis

In May 2023, NHS chief executive Amanda Pritchard announced that aspiring doctors could start working in the NHS without going to university, describing the plan as a 'once-in-a-generation opportunity to put the NHS on a sustainable footing'. The drastic proposal to let school-leavers learn on the job is part of the plan to help fix the staff shortages in the NHS workforce, which currently has 124,000 vacancies.



Thousands of doctors and nurses will be able to enrol in the apprenticeship scheme to 'earn

while they learn' in the coming years. It is believed that one in 10 doctors and a third of all nurses could eventually be trained with this new approach to recruitment.

A pilot scheme of the new proposal is due to start in September this year. It will see nurses, paramedics and other health service staff train on the job for five years, before sitting the same exam as medical students to become doctors.

Leaders at the British Medical Association have raised concerns that the new approach could lower standards among the country's doctors. Meanwhile Professor Nicola Ranger, chief nurse at the Royal College of Nursing, said: 'All the research shows that patient outcomes greatly improve when in the care of the right number of degree-educated nurses.

The apprenticeship route must be limited and not come at the expense of university-based nursing graduates.' (10th May 2023)

Just to remind you!

Don't forget your flu jab!

Although it is still only September, like it or not, the flu season is coming and people with diabetes are at increased risk of developing complications of flu and difficulties with the impact the flu may have on their diabetes. Influenza, commonly known as the flu, is a respiratory virus and causes symptoms such as fever, cough, sore throat, and runny nose, and can progress

to more serious illnesses, such as pneumonia, and death.

People with diabetes already have difficulty fighting off infections, and also have difficulty mustering an appropriate inflammatory response to fight off an early pneumonia so they have an increased risk of developing pneumonia as a result of a flu infection. This is why it is important for people with diabetes to have their flu jab.

Flu and Pneumo Jabs

At this time of year, we like to remind you that the flu jab is offered as a priority to people in 'at risk' groups which includes those with diabetes, pregnant women and the elderly. People with diabetes are eligible for both the flu and the "pneumo jab" vaccines. If you are offered both vaccines, it is safe to have them at the same time.

The 'pneumo' jab - a vaccination to protect against pneumonia, is available to the following groups of people:

- children who are under two years of age – they are vaccinated as part of the childhood vaccination programme,
- adults who are 65 years of age or over,
- children and adults with certain chronic health conditions, including diabetes.

Bear in mind that getting vaccinated does not guarantee that you won't get the flu but research has shown the getting vaccinated reduces the likelihood of people with diabetes being hospitalised by 46% and of those admitted, there was a 26% lower risk of being admitted to intensive care.



IDDT secures Charity Partnership with Major National Event

IDDT is thrilled to announce that it has secured a position as the charity partner for the UK's most prestigious event for Health Professionals with an interest in diabetes – **Diabetes Professional Care**.

Bringing together over 3,500 healthcare professionals, Diabetes Professional Care is the UK's leading event for the entire team involved in the prevention, treatment and management of diabetes and its related conditions.

Held annually at London Olympia, the event is attended by over 3,500 healthcare practitioners to explore the future of diabetes care, learn about the latest technology, and gain key clinical updates, alongside colleagues from primary, secondary and community care.

The event is a cutting-edge, CPD accredited event, featuring a blend of presentations from top leaders and practitioners in the diabetes world and a range of exhibitors, including IDDT, displaying an extensive range of products and services.

If you are a health professional and are interested in attending this **FREE** event, you can register your interest here:

www.diabetesprofessionalcare.com



**Diabetes
Professional
Care**

15 - 16 November 2023
Olympia London



Just getting older can be stressful!

I was just over 30 years old when my daughter was diagnosed with Type 1 diabetes and I still remember how overwhelmed and shocked I felt by the diagnosis itself and by just how much there was to learn about diabetes and how to manage it. Now I am happy to describe myself as 'old', or at least as 'getting on a bit', I can recognise that I would find being diagnosed with LADA or Type 1 diabetes at an older age is very different and may be very difficult.

LADA – a form of Type 1 diabetes

Latent autoimmune diabetes in adults (LADA) is a type of diabetes that starts in adulthood developing slowly over time. It is usually classed as a form of Type 1 diabetes because it happens when the pancreas stops making insulin due to an autoimmune process damaging the insulin-producing cells in the pancreas. However, unlike Type 1 diabetes, in LADA this process happens slowly. The most common time for diagnosis of LADA is between the ages of 30 and 50 but people can be diagnosed at any age above this.

As LADA (sometimes called Type 1.5 diabetes) is slow onset and because it starts at an age older than the more common Type 1 diabetes, many people are at first misdiagnosed as having Type 2 diabetes. People diagnosed with Type 2 diabetes who are lean and physically active, or who have lost weight without effort, could have LADA, so may need to check the diagnosis with their healthcare provider. The treatment of LADA is always with insulin and so there is a lot to learn and with increasing age, this can become difficult and stressful.

Without diabetes, just getting older raises issues and if LADA is diagnosed at an older age, then this raises even more issues.

- There are stresses and worries from just getting older - doing new things or going to new places can cause anxiety or stress. So being diagnosed with diabetes is a stress on top of existing stress!
- Diagnosis is a shock at any age is – but certainly not easy in older people who may have other health conditions or be a carer for their partner. Then there are many changes that have to be made and a lack of the freedom that we have been used to.
- Remembering things, such as people's names or a film title, tends to become more difficult and frustrating. However, when you have diabetes, there is so much to remember – have I done my breakfast injection or was that yesterday morning? Remembering to pack everything for going on holiday, checking and double checking that you have got everything because you already know your memory is not as good as it used to be.
- Those of us who are older, are also very aware that having to learn new things, is not easy and there is so much to learn with a diagnosis of any form of Type 1 diabetes and especially LADA in older age. This also applies to people diagnosed with Type 2 diabetes when they are older and especially those who have to go on to insulin.

There's diet, exercise not always easy depending on other health conditions, injecting, blood glucose testing and very importantly, knowing how to act on the results and what actions need to be taken to manage diabetes. Then on top of this, there's today's technology – for many of us as we get older, this is just an added worry.

- IDDT here's from people who are told they can't have a FreeStyle Libre unless they have a mobile phone but a lot of older people don't have one, don't want one or can't afford one!
- A recent call from a lady, over 80 years old, who was advised to take the National Diabetes Prevention Programme online because of difficulty travelling and caring for a husband with dementia.
She can use a computer for basics but doesn't know what an app is and can't use the links.
- Will not being able to use technology adversely affect my diabetes? Am I being left behind?

Are there lessons to be learnt?

I think there are! Firstly, people with diabetes are not one group of people who are all alike – we have different needs, different fears and worries, different abilities and depending on our age, different reactions to a diagnosis of diabetes. As we get older, we need more help and an understanding of the fact that we are older. We all tend to laugh when people like me say that I have to phone my granddaughter if I can't do something on my mobile and I have to get her to set up a new TV if I buy one but this is reality for many of us. This same understanding needs to be shown to older people when they are diagnosed not an assumption that the same information and education is appropriate for everyone. I suppose this is a plea for the elderly!

RESEARCH

Type 1 diabetes develops differently due to the activation of different genes

Researchers have identified 13 genes involved in immune responses, that are activated specifically in people who develop Type 1 diabetes at a young age. The signalling pathways linked to these genes are potential targets for new therapies to prevent Type 1 in young children.

A team of researchers from three UK universities looked at 36 pancreases donated by people with and without Type 1 diabetes. They took a sample from each pancreas and looked for, and found, differences in the activity of genes that control immune responses.

They looked at 750 genes that are associated with autoimmune inflammation, where the body's immune system attacks its own cells. Some of these genes were changed in people with Type 1 diabetes compared to those without the condition.

Of special interest was that 13 of these genes showed different levels of activity between individuals diagnosed with Type 1 below aged 12 compared to those diagnosed during their teenage years or later. This suggests that the process of developing the condition may be different in early childhood compared to later in life.

The lead investigator said: "The incidence of Type 1 diabetes is increasing fastest in very young children. The findings from this study are important as they identify several signals used by the immune system to activate immune cells that are increased in the pancreas only in people developing Type 1 at a young age. In the pancreas, these signals may intensify the immune responses that destroy insulin-producing cells, leading to Type 1 developing at a young age." Detecting these immune system signals in people already identified from screening programmes as being at risk of diabetes may indicate early onset of Type 1. The biological pathways these signals use are potential targets for treatments to slow or block the progression of Type 1 diabetes.

Immune therapies are going through clinical trials and becoming a reality for people with Type 1. Understanding how immune responses differ in different people, will enable them to have the treatment that will be most effective for them and will ensure that treatments are correctly targeted to each person.

Subtypes of Type 1

Research suggests that children may respond to specific immunotherapies differently according to their age at diagnosis. The researchers suggest that there are subtypes of Type 1 diabetes, referred to scientifically as endotypes. The pattern of damage caused by the immune system in the pancreas differs between people who develop Type 1 at different ages. This latest research shows that these differences are due to different genes being activated in younger people. (Report from the JDRF, June 2023)

Gut Bacteria and Type 1 Diabetes

This study showed that children who develop Type 1 diabetes may have signs in their gut as early as the age of 1 year. The research found differences in gut bacteria that could help identify infants at higher risk of developing the condition.

The researchers identified 16 participants who were diagnosed with Type 1 diabetes at about 13 years of age and compared them with a control group of 32 participants who did not develop Type 1 diabetes. They analysed bacteria in stool samples collected at about one year of age from this small group of children who developed Type 1 diabetes and about 12 years later compared them to samples in a similar group who did not develop diabetes. The researchers found significant differences in the gut bacteria of the two groups.

The lead researcher has stated that once they learn more, they may be able to make a predictive model based on gut microbiome composition and other factors that would have higher accuracy than the currently available genetic risk scores. Monitoring gut health over time and screening children at birth for genetic risk might be helpful and enable research into dietary or probiotic interventions to improve gut health, which might reduce the risk of developing Type 1 diabetes.

The researchers noted that it was a small study and that future studies need to include a larger study population but the possibility of preventing onset of Type 1 diabetes by altering or promoting 'healthy' gut bacteria is an appealing idea and more research is required. (Diabetologia, April 2023)

Stress and depression during pregnancy increases the risk of Type 1 diabetes in offspring after 8 years

A recent study has found that depression and anxiety during pregnancy are directly associated with an increased risk of Type 1 diabetes in their offspring but only after, not before, eight years of age.

The study was a population-based including 1,807,809 offspring looking as national registries related to diagnosis/medication/prescriptions for depression and anxiety in pregnancy and cases of Type 1 diabetes. There were no associations for paternal depression or anxiety and exposure before pregnancy was not linked with the offspring's Type 1 diabetes risk. As the association between maternal depression and anxiety was strong, the researchers recommend that further research is warranted to better understand the early life risk factors for Type 1 diabetes. (BMJ Open Diabetes Research and Care, May 2023)

Keeping most HbA1c readings under 9% avoided raised risk of dementia in older people with Type 2 diabetes

Based on over a quarter of a million patients, this Australian research found that those who kept more than half of their haemoglobin A1c (HbA1c) results under 9% saw a significantly lower risk for dementia compared with those who had the majority of measurements over this threshold. The more specific results were:

- Patients who had more than half of HbA1c measures between 9% to just under 10% saw a 31% increased risk for dementia compared to those with less than half of their measures in this range.
- Those who had more than half of their HbA1c readings over 10% had a 74% higher risk for dementia than those with less than half of their measures in this category.
- The highest incidence of dementia occurred among those with 75% or more of their HbA1c readings of 10% or higher over the average 5.9-year-long follow-up period.
- Older patients who had more than half of their HbA1c readings below 8% saw a modest, but significantly lower risk for developing dementia: less than 6%, 6% to less than 7% and 7% to less than 8%.

The American Geriatrics Society's clinical guidelines recommend a relaxed target HbA1c goal between 7.5% and 8% for older adults or a higher target between 8% and 9% for those with multiple comorbidities, poor health, and limited life expectancy.

Importantly, this research observed no significant change in hazard for people with HbA1c concentrations in the range of relaxed glycaemic control recommended by the American Geriatrics Society for older people with multiple comorbidities, poor health, or limited life expectancy

The researchers comment that while it's important to avoid any harms that come from hyperglycaemia, intensive glucose control can put this population at jeopardy for the harmful effects of hypoglycaemia, like falls. People with Type 2 diabetes aged 50 and older (average age 62) were included in the analysis. There were, on average, 11.6 HbA1c measurements per person during the course of follow-up among the cohort. (JAMA Neurology, April 2023)

NOTE: According to a new analysis, three groups of newer Type 2 diabetes drugs have been shown to be linked to a lower risk of developing dementia. In addition, a higher daily step count and brisk walking are linked to a lower dementia risk as is a diet high in antioxidants. Taking the Type 2 diabetes drug, metformin, as prescribed, is also linked to a lower risk of developing dementia. (Journal of the American Geriatrics Society, April 2023)



Identification of disease-causing proteins leads to possible treatments for diseases like diabetes

New research has identified hundreds of proteins that might contribute to the onset of common, chronic metabolic diseases such as Type 2 diabetes and therefore pathways to potential treatments. The study successfully linked more than 900 regions in the human genome to almost 3,000 proteins in our blood, many of which have not been previously identified.

The researchers then applied these findings to existing genetic studies for hundreds of diseases and found more than 500 gene-protein-disease links. One example is that for the first time they showed that people with high levels of a hormone called GRP are less likely to develop Type 2 diabetes. This could be because GRP decreases the chances of becoming overweight so it is a potential target for the prevention and/or treatment of Type 2 diabetes. (Nature Metabolism, March 2023)

Type 1 Diabetes Grand Challenge invests £5 million to kick off the race towards a cure

On March 27th, 2023, the first 3 projects being funded by Steve Morgan Foundation's landmark investment of £50 million were announced. £5 million are to fund the following projects:

- new drugs to help people with Type 1 diabetes grow back their own beta cells inside their pancreas,
- the use state-of-the-art 3D bioprinting to 'print' a device that can be implanted into people with Type 1 diabetes to deliver a new supply of beta cells,
- the probing of how and why a person's immune system destroys their own beta cells and how this process may differ between people with Type 1 diabetes and study how beta cells can fight back against the immune attack.

Most adults with diabetes report CGM disruptions due to device problems medical care

A recent US study found that more than 80% of adults with diabetes using continuous glucose monitoring reported at least one instance of needing to stop using their device during the last year due to medical care, such as surgery or radiology, or a device-related problem. Device malfunction and insertion problems were the two most common reasons for CGM disruption. CGM disruptions, were defined as device removal for the purpose of receiving medical care or any discontinuation of wear that was linked to a device malfunction, displacement or insertion problem.

Percentage of adults with diabetes reporting 4 or more device-related CGM disruptions:

- 35.4% were due to device malfunction disruption,
- 18.7% were due to insertion problems

The researchers concluded that the vast majority of people using CGM are not getting the full wear time out of every CGM sensor. (Journal of Diabetes Science and Technology, May 2023). It has to be noted that this study was carried out in the US and the results in the UK may not be the same.

Drug to prevent night-time lows approved for trials

In the US, the FDA has approved for phase 2 clinical trials a new experimental drug for Type 1 diabetes. If approved, the drug would be the first therapy to specifically address low blood sugars at night. The drug is made by Zucara Therapeutics is currently known as ZT-01 and will attempt to restore the body's natural ability to respond to low blood sugar levels. It is a somatostatin receptor 2 antagonist – somatostatin is a hormone made by the pancreas that prevents the body from releasing glucagon. Researchers will evaluate the ability of the drug to blunt hypoglycaemia caused by insulin in Type 1 diabetes. The trial will primarily look at rates of overnight hypoglycaemia, as measured by a continuous glucose monitor, while participants take the drug every evening before bed for four weeks. While insulin is the hormone that lowers blood glucose, glucagon, also produced in the pancreas, counteracts insulin and raises glucose levels. Having Type 1 diabetes may affect the body's ability to release glucagon during a low blood sugar and the goal of ZT-01 is to restore the body's glucagon response, which could make it easier to recover from lows.

The Late Dr Sharad Pendsey



It is with sadness we have to announce that Dr Sharad Pendsey from Dream Trust in Nagpur passed away on 14th June 2023. Dr Pendsey was a senior diabetologist with over three decades of experience in his field receiving training in Germany, Croatia and the UK. He and his wife formed Dream Trust in 1995 as a charitable institution working towards making the life of children with diabetes, especially girls, more bearable and more meaningful. This project of sponsoring children with diabetes was developed after two shocking incidents of losing girls with diabetes – their parents stopped giving them insulin because they simply could not afford it. Over the years, Dr Pendsey and his team have

helped children and young people with not only obtaining their insulin and other diabetes supplies but also helped with their education and training so as adults they are able to be financially independent.

In addition to this tremendous work, Dr Pendsey was a mentor for a large number of upcoming diabetologists in Central India and he authored two books – Practical Management of Diabetes, and Diabetic Foot – A Clinical Atlas. He was the past President of the Research Society for the Study of Diabetes in India, President of the Diabetic Association of India, Nagpur Chapter, and a Member of the International Working Group on Prevention of Diabetic Foot. Our thoughts are with his family and friends.

From our own correspondents



An IDDT member's experience

Dear Jenny,
I am so very grateful for those well-chosen words or advice you gave me after I received a letter from my surgery informing me that my meter and test strips had been changed. I have been using my present meter, or replacements of it, for many years which I find compact and easy to use.

The letter caused me considerable anxiety, anger and fear. I quoted your words to my surgery:

- ***"I am entitled to choice. Nobody has revoked my right of choice since the NHS came in, in 1948"***
- ***"I insist on keeping the meter I have and the test strips to match."***

The surgery reversed the change of meter and test strips back to my original one of choice. So, my very grateful thanks!

By phone

Note: Yet again, the way forward is to look after your own best interests which may well mean being assertive, as our member above was.

Use the above words if you need to.

Preparation is the key!

Dear Jenny,
I read with interest your announcement in our local paper about the preparations needed prior to holidaying abroad. I was diagnosed Type 2 in 1981 and since 1996 have been using two types of insulin for control. My wife and I have taken many holidays abroad to North America and Canada, but mainly driving holidays in Europe, so I agree, preparation before leaving home is all important. I used to tick off items on a written list, but now it's indelibly imprinted on a memory chip in my brain! Because I'm old (elderly 88), there's also a raft of other medication I need to take in order to keep these creaking bones functioning.

I hope this helps other people to know that they can travel but preparation before doing so is all important.

S.B.
By email

The people I've met along the way!

Hello Jenny,
I've just received my medal for being on insulin for 50 years. I was diagnosed in May 1973, at the age of 2. Nobody in my family has diabetes so it was quite a shock to my family, and a condition very few had or knew about.

I've seen so much change since the age of 2. From glass and metal syringes stored in a pale blue plastic vial full of surgical spirit, then plastic syringes to insulin pens and pumps! Urine testing and then to the introduction of blood testing strips to meters to CGM's! I've also lived through some bizarre changes: from being told to get your blood sample from your earlobe instead of your finger, to injecting in your upper shin. Both aspects of which are totally deemed inaccurate now!

Along my journey I've met some remarkable fellow Type 1's who have shown such strength and resilience, and I have been so lucky to have these people in my life. My daughter presented me with a personalised book with photos and messages from all my Type 1 friends to mark this landmark point. What a truly memorable gift! Celebrated the occasion in true style: a 1970s themed family fancy dress party, a surprise afternoon tea and then lunch with both my kids at The Oxo Tower. Thank you for being part of my journey over the years, and for all your support and advice.

Kindest regards
Nabila Ritchie

A different aspect to the postal strike!

Dear Jenny and IDDT,
During lockdown, presumably like many other members, I started to order my repeat prescription medications from an online pharmacy. My experience has been positive - a quicker and more reliable service, with items delivered to my door. My insulin has been arriving wrapped in ice packs and plastic-wrapped wool insulation. WARNING!! Until there was a postal strike. I unfortunately didn't heed the danger signs of melted ice pack (ie insulin not kept at a cool enough temperature) and put vials in the fridge. Horror! Developed ketoacidosis in Spain some weeks later as insulin was "off". Take Home Message - if your insulin arrives from an online pharmacy with melted ice packs bin it and order a fresh lot!

Anne in Devon

NHS to expand soups and shakes for people with Type 2 diabetes

At the Diabetes UK Professional Conference in April this year, there was a presentation by NHS England's national clinical director for diabetes and obesity which described what is known as 'the soups and shakes' diet. The programme, first piloted by the NHS in 2020 as part of its Long-Term Plan, will expand so that it can provide access to patients in every part of the country by March 2024 – it is currently available in 21 areas of England. Patients can be referred to the programme by their local GPs if they have been diagnosed with Type 2 diabetes in the last 6 years.

What is the weight loss programme?

- It is a low calorie diet (800 calories a day), total diet replacement products such as shakes and soups for the first 3 months, support and monitoring by expert clinicians and coaches.
- After this, a carefully managed plan reintroduces healthy, nutritious food and participants can track their progress through one-to-ones, group sessions and digital support to help them maintain a healthier weight.

The findings of the pilot show:

- participants lost an average of over 13kg (two stone) in 3 months which was maintained at 6 months,
- by the end of the year long programme, people had lost 11kg on average (over 1.5 stone),
- weight loss results show promise that the programme might lead to remission in up to half of people with Type 2 diabetes.

But not everyone agrees!

In fact, in an article by the BBC, Top nutrition scientist, Professor Tim Spector, said the Soup and Shake diet to reverse Type 2 diabetes 'sends the wrong message'. He also said that it "definitely isn't suitable for the majority of people" and will only work for a "very small number of highly motivated individuals".

As meal replacement shakes and soups are made up of ingredients not typically found in a kitchen, they are classed as ultra-processed foods.

Professor Spector said that "real food" is the solution to better long-term health and he pointed out that of the original 149 participants in the study, only 11 managed to reverse their diabetes. He went on to say: *"The positive thing here is that this research does show that it is possible to get a very small number of highly motivated individuals into remission via calorie control. However, a diet of 800 kcals of soups and shakes definitely isn't suitable for the majority of people. We believe that using real food is the answer to long-term health, not these low-calorie, ultra-processed food (UPF) substitutes."*

The evidence is debatable

The BBC report pointed out that the Diabetes UK-funded trial (known as the "Newcastle Diet") involved 149 participants with Type 2 diabetes sticking to a soup and shake diet for between 12 and 20 weeks. Two years later, just over a third of the volunteers were free of Type 2 diabetes. In the following 3 years, 95 participants received further support, with 23% remaining in remission – not the same figures used above.

There are some questions that arise as a result of this programme...

- The recommended calorie intake for men is 2,500 and for women 2,000, so with such a low calorie intake, will people actually have the energy to carry out their normal tasks, especially physical work?
- Will people be sufficiently motivated to tolerate this diet for several months? Will they get fed up of it?
- In the pilot study, the participants had a great deal of medical, nutritional and psychological support to enable them to complete the diet but is this support going to be available once this diet is used more generally?
- Losing weight can lead to major health benefits, including reducing the risk of Type 2 diabetes, improving blood sugars and reducing the risk of complications, is this a realistic approach for the vast majority of people?



Call for ultra-processed food packaging to feature warnings similar to cigarettes

In June this year, a number of MPs called for ultra-processed foods to carry a warning similar to those on cigarette packs because they have been linked to poor health outcomes and is also addictive.

Popular examples of ultra-processed foods are ready meals, pizza, crisps, fizzy drinks, fruit-flavoured yoghurts and ice cream or can be defined as foods which contain ingredients we would not add when cooking at home and contain:

- high levels of added fat, sugar and salt, are low in protein and fibre,
- contain artificial colourings, sweeteners and preservatives.

The proposal is that the food labelling laws should be changed so that ultra processed foods should carry a label warning in a typeface

large enough to be read without the use of a magnifying glass, so people know what it is they're buying before they purchase it.

The MPs made the point that awareness of what ultra-processed food is, is actually fairly low but they are familiar foods in our shopping trolleys. Changes such as this have got to be better for people with diabetes and the increases that we are seeing.

Note: Wales will introduce new laws in 2024 to be rolled out across Wales by 2025. This will restrict the placement and price promotion of products high in fat, sugar and salt to improve diets and help prevent obesity by restricting the ways foods high in fat, sugar or salt can be promoted. The legislation will not apply to all high fat, sugar and salt products but it will target food and drinks that contribute most to obesity.

IDDT's new membership database

In August we changed to a new computer system for members' details, so while it is new, please bear with us if you find any errors or receive something twice but do let us know and we will make corrections.

Thinking about Christmas

It seems early to be even thinking about Christmas but it will be here sooner than we think. Included with this Newsletter is a leaflet entitled, 'Thinking about Christmas' and with this you can order IDDT Christmas cards, the Diabetes Diary for 2024 and IDDT's Shopping List.

The Shopping List has magnets on the back to attach to your fridge for easy jotting down. On one half of the page you plan your meals for each day and on the half you write down the items you need to buy. This is a tear off section to take to the shops with you or to order your online shopping. It works well with the 28-day meal planner in IDDT's FREE booklets, Diet and Diabetes and 'Diabetes Everyday Eating'.

Take a look at the leaflet for gift ideas and support IDDT!



LOTTERY RESULTS

WINNERS OF THE APRIL 2023 DRAW ARE:

1st prize of £485.76 goes to Audrey from Birmingham

2nd prize of £364.32 goes to Anon. from Chepstow

3rd prize of £242.88 goes to Heather from Hartlepool

4th prize of £121.44 goes to Thelma from Liskeard

WINNERS OF THE MAY 2023 DRAW ARE:

1st prize of £479.04 goes to Anon from Canterbury

2nd prize of £359.28 goes to Kenneth from Porth

3rd prize of £239.52 goes to Sylvia from Kettering

4th prize of £119.76 goes to Kathleen from Huddersfield

WINNERS OF THE JUNE 2023 DRAW ARE:

1st prize of £481.44 goes to Stephen from Blyth

2nd prize of £361.08 goes to Patricia from Wimborne

3rd prize of £240.72 goes to Anon from Northwich

4th prize of £120.36 goes to Anon from Treharris

Note: The winners of the draws for July, August and September 2023 will be announced in our December 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 karl@iddtinternational.org

If we can be of help in any way, please contact:

InDependent Diabetes Trust (IDDT), PO Box 294, Northampton NN1 4XS

Tel: 01604 622837 email: enquiries@iddtinternational.org Or visit our website: www.iddtinternational.org



SNIPPETS

Annual expenditure of the Dept of Health and Social Services

In 2022/23, funding costs for departmental and system administration of the Dept of Health and Social Services will be £3.3 billion, representing 1.9% of the Department's Revenue Departmental Expenditure Limit (RDEL) of £176.1 billion.

The rest of this RDEL funding is allocated to NHS England, other arm's-length bodies and other Departmentally-managed programme budgets for frontline spending. (PQ answer, 13th April 2023)

WHO: Covid -19 no longer a global emergency

The World Health Organisation has ended its declaration that Covid -19 is a global health emergency but said the illness, and variants of the virus that cause it, remain threats that must be addressed. WHO Director-General said the decision does not mean Covid -19 is over as a global health threat and he would not hesitate to bring experts together to re-examine the situation should future variants pose a danger. (5th May 2023)

Study ties prior COVID-19 to greater diabetes risk

People who tested positive for Covid-19 had a greater risk of developing diabetes, especially men, when compared with those who tested negative. The findings also showed that the risk for diabetes was even greater among those who had Covid-19 and were admitted to hospital or intensive care unit, compared with those who didn't have Covid-19. (JAMA Network Open, April 2023)

Cohabitation tied to lower glucose levels in older adults

A study has shown that older adults who live with a partner had lower blood glucose levels than those who live alone.

The researchers commented that the starting points for addressing health risks especially deteriorating glycaemic control, and the need for increased support for older adults is when people are experiencing the loss of a marital or cohabitating relationship through divorce or bereavement, as well as the dismantling of negative stereotypes around romantic relationships in later life. (BMJ Open Diabetes Research & Care, February 2023)

HbA1c – insulin resistance rises with statins

An analysis in of information from 67 studies found that measures of HbA1c and insulin resistance increased among people who receive statin treatment whether they had normal or abnormal glycaemic control. The dosage or type of statin prescribed did not affect the effect on diabetes. The researchers recommend that clinicians should monitor the diabetes development of all patients on statins irrespective of their initial glycaemic status. (The European Journal of Pharmacology, April 2023)

Childhood adversity tied to risk of Type 2 diabetes in the young

A study has found that the risk of developing Type 2 diabetes in early adulthood is higher among people who experienced more childhood adversity, such as family poverty, negative family dynamics or illness or death of a family member, compared with those who experienced less childhood adversity. In addition, associations between childhood adversity and diabetes generally seemed stronger among men than women. (Diabetologia, April 2023)

'Alarming' rise in diabetes expected globally by 2050

A global study has shown that without action, every country in the world will see rates of diabetes rise in the next 30 years. Currently there are 529 million people in the world with diabetes, a prevalence of 6.1%. The researchers projected that this will more than double to around 1.3 billion people by 2050.

The majority of the cases are Type 2 diabetes with many linked to obesity so largely preventable. This global increase is not uniform with some countries and regions particularly badly affected eg prevalence rates are expected to reach 16.8% in North Africa and the Middle East and 11.3% in Latin America and the Caribbean by 2050, compared to an estimated 9.8% globally, but every country will be impacted. The rapid rate at which diabetes is growing is alarming and challenging for every health system in the world, especially as diabetes is linked to a number of heart conditions such as heart disease and stroke. (The Lancet, funding the Bill and Melinda Gates Foundation)