

Greetings - for - Christmas - and the - New Year!

This is the final Newsletter of 2018 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, it is much appreciated.

IDDT continues to grow and requests for our booklets increase so it has been a busy year for IDDT and the staff and we look forward to 2019.

Christmas is a time for fun, presents and lots of food. However, if you or a member of your family has diabetes it can also be a worrying and stressful time too, especially if it is your first Christmas with diabetes. With this in mind IDDT has produced a new, free booklet **"Diabetes at Christmas"**.

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, just give us a call or contact us by email as above. They are £3.25 per pack of 10 plus 80p per pack p&p.



IN THIS ISSUE...

- Insulin – interesting facts
- Exemption prescription certificate update
- Diabetes diagnosis – mistakes are common
- Lottery results

The booklet offers help and advice about managing diabetes at Christmas by offering a range of recipes and ideas about food and eating, allowing you to enjoy Christmas and still manage your diabetes. For your free copy of this booklet, please get in touch with us on 01604 622837 or email enquiries@iddtinternational.org



FREESTYLE LIBRE UPDATE



FreeStyle Libre 2 includes optional real-time alarm!

A new version of the FreeStyle Libre system will be launched on a roll out basis throughout Europe in the coming weeks. This new version will include optional easy-to-use alarms to alert people to low and high glucose levels and will also notify the user of signal loss, such as when the sensor is not communicating with the reader. The alarm being either vibration or sound according to preference.

The price of the new system complete with additional features will be the same as the original FreeStyle Libre. The FreeStyle Libre system is now being used by more than 800,000 people across 44 countries. Abbott has secured partial or full reimbursement for the FreeStyle Libre system in 31 countries, including France, Germany, Japan, the UK and the US.

IDDT comment – so when will people in the UK have full access to the sensors, not to mention availability across the country? At least having the alarms rules out some of the reasons given for not prescribing it!

A paediatric study of the use of flash glucose monitoring

A survey was carried out in French medical centres among 347 children with Type 1 diabetes and their parents between December 2016 and June 2017. The aim was to understand the opinions of the children about the everyday use of the FreeStyle Libre.

There were two main reasons for starting using this method of monitoring

- To avoid the pain of finger prick tests (85.5%).
- To allow parents to check night-time blood glucose levels (60.8%).

Difficulties

- The sensor falling off (47.6%).
- Measurement discrepancies (25.1%).
- Skin reactions (22.2%).

89.5% Changed their habits

- 70.6% took more scans.
- 37.2% corrected their high blood sugars more promptly.
- 37.5% used the trends to adjust their insulin.

Satisfaction levels

- About a third (35.1%) had lower HbA1cs as a result of using the FreeStyle Libre, so an improvement in their glycaemic control.
- Two thirds ((67.1%) were satisfied with the device.

The researchers concluded that the flash glucose monitoring is a widely accepted option for self-monitoring but that specific training is needed to improve its use for insulin dosage adjustments. (PlumX Metrics)

A few points to remember when testing interstitial glucose and blood glucose

- Interstitial glucose will rarely match blood glucose and they are expected to be different.
- The interstitial glucose lags behind blood glucose by about 15minutes.
- There will be a greater difference when glucose levels are changing quickly, such as after eating or after taking insulin.
- When glucose levels are going up, the change will be less in the interstitial glucose than the blood glucose.
- When glucose levels are going down, the change in interstitial glucose will be greater than the blood glucose.

Note: just a reminder that for driving the DVLA still requires blood glucose tests, finger prick tests, and it is not sufficient to only use the FreeStyle Libre tests.

The politics - maybe a 'Matt Hancock Watch' for the Newsletter?

In October after announcing funding of £7 million for 2 new programmes, Secretary of State for Health and Social Care Matt Hancock said:

- The UK is a world leader in medical and health research and we want to make sure patients are the first to benefit from the tech revolution happening across the NHS.
- Every day, innovative new treatments are demonstrating the power technology has to save lives – and I want to make these opportunities available across the whole NHS.
- These programmes will fast track innovations from lab bench to patient bedside and help ensure that NHS patients continue to be the first to benefit from the life-changing treatments developed in this country.

Surely the FreeStyle Libre is an 'innovative new treatment' for people with diabetes, so why is there a postcode lottery of the FreeStyle Libre, Mr Hancock?

Diabetes All Party Parliamentary Group (APPG) Meeting

According to a statement issued after the July APPG meeting, the postcode lottery is denying hundreds of thousands of people with diabetes the same lifesaving patch used by the Prime Minister Theresa May. It is urging MPs from areas without access to petition their CCGs to end the postcode lottery. This seems to be working because there are increasing numbers of Parliamentary Questions being asked by MPs, here are a couple of examples:

The Prime Minister managing her diabetes

Steve McCabe MP: I am sure even the Prime Ministers fiercest critics are full of admiration for the way she manages her diabetic condition and holds down such a tough and demanding job. I understand she benefits from a Freestyle Libre Glucose monitoring system, wouldn't it be great if she would do something to make that available to the half a million people who are denied that benefit because of NHS rationing. Perhaps we could call that "help for the many not the few."

Theresa May: I do use the Freestyle Libre and it is now available on the NHS. It is not the only means of continuous glucose monitoring that is available on the NHS and there are other means available. I saw a letter from a young girl that had written in to say that she started on the Freestyle Libre but then because of the hypos she was having, has moved onto to a different glucose monitoring system. It isn't the case that there is only one system that is the right one for everybody. What is important is that it is available on the NHS.

IDDT comment: typical of a politician, she doesn't address the issue. We all know that the Libre is available on the NHS, it is rationing that is stopping thousands of people from actually obtaining it. Couldn't she do something?

Grahame Morris MP: To ask the Secretary of State for Health and Social Care, with reference to the oral contribution by the Prime Minister on 17 October 2018, if he will publish the procedure for a diabetic to obtain a Freestyle Libre Glucose Monitoring System through the NHS.

This resulted in the standard answer from Minister of Health, Steve Brine, which we covered in our September Newsletter – it's down to CCGs and local need!

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Note: just a reminder that for driving the DVLA still requires blood glucose tests, finger prick tests, and it is not sufficient to only use the FreeStyle Libre tests.

INSULIN – INTERESTING FACTS!

NHS is paying five times over cost price for insulin!

Research carried out by Health Action International (HAI) has shown that in the UK insulin should be available for £75.00 per year per person but the NHS is paying a massive £404.00 per year per person.

The cost of insulin in the US is \$1,251 (£950) per year, which is why there is much publicity about the high cost of insulin in the US where many people have to pay for it themselves and simply cannot afford it!

HAI is a non-profit organisation that promotes better access to medicines. One of the researchers, Dr Margaret Ewen, stated that this inflated cost of insulin is unacceptable and could be due to the fact that three large companies dominate the insulin market, supplying 96% of the global market. She also added: *“Estimating the cost of production for hepatitis C treatment was instrumental in getting dramatic price cuts. This needs to happen now for insulin.”*

Patents on a number of insulins have expired in recent years which means that other companies can make similar insulins, known as ‘biosimilar insulin’. However, there are currently very few manufacturers making them, so the 3 leading producers can continue to keep the prices sky high. The study estimated that alternatives could be sold for as little as £36 to £54 per person per year in the UK.

If more companies produced biosimilar insulins, it would increase the global competition and be reflected by a lower cost, but in order for this to happen, companies need to be sure that these insulins would be purchased/used.

Lead author Dr Dzintars Gotham added: *“There is little public information about how much medicines cost to manufacture. Our analysis offers, for the first time, an insight into the insulin market and how prices could decrease, especially for analogues. But if there is more competition, our analysis suggests that prices could drop substantially, even assuming high development costs. The question now is what could enable more competition.”* (BMJ Global Health, September 2018)

Fridge temperature may make insulin less effective

New research carried out in Germany analysed the temperatures at which people living with diabetes store their insulin. The authors are now warning against the dangers of improper storage which could affect insulin's quality and effectiveness by loss of potency.

Correct temperatures for insulin for it to be effective

- Insulin needs to be stored in a refrigerator at around 2–8°C (36–46°F).
- If carried in a pen or vial, it must be stored around 2–30°C (36–86°F).

The researchers examined the temperature at which insulin was stored in domestic fridges by 388 people living in Europe and the US. They installed temperature sensors which automatically took measurements every 3 minutes for 49 days.

- 79% of the 400 temperature logs were outside the temperature guidelines.
- 11% of the time, 2 hours and 34 minutes each day, the insulin was stored in the fridge at incorrect temperatures.
- Carried insulin was only outside the recommended temperatures for 8 minutes.
- Freezing was also a problem, sensors detected temperatures dropping below 0°C about 17% of the time or 3 hours per month.

Recommendations from the research

When storing insulin in the fridge at home, always use a thermometer to check the temperature. Long-term storage conditions of insulin are known to have an impact on its blood glucose lowering effect. Precise dosing of insulin is particularly important for people who inject several times a day or use an insulin pump for them to achieve optimal blood glucose control.

The researchers also added that even a gradual loss of potency introduces a variability in dosing and more research is necessary to look into the extent to which temperature variations affect the insulin and blood glucose control. (Presented at the European Association for the Study of Diabetes, 2018)

MedAngel

This is a wireless thermometer and app that constantly monitors the temperature of your medication. It protects medications, such as insulin from freezing or becoming too hot so that you don't have to worry about whether your insulin has been damaged and less effective. For travelling, MedAngel will send you real-time notifications if your meds are getting too hot or too cold whether they are in a bag, cooler box or hotel fridge.

Further information is available online at www.medangel.co

Quality of insulin assessment in America

A small study published in December 2017 (*Journal of Diabetes Science and Technology*) suggested there was a wide variation in the level of activity in insulin available at US pharmacies. Researchers examined 18 10-mL vials of NPH and regular insulin produced by two major manufacturers randomly purchased in US pharmacies.

The US Pharmacopeia and the FDA require insulin vials and cartridges to contain a minimum of 95% intact insulin (95 U/mL) but none of the vials met this standard at the time of testing. Naturally this caused concern for people with diabetes and healthcare providers as well as a certain amount of controversy!

This prompted a new one-year long study to investigate the consistency and potency of insulin available at retail pharmacies across America. It is being funded by the American Diabetes Association, JDRF International and The Leona M. and Harry B. Helmsley Charitable Trust, none of whom were involved in the original study. The researchers will examine eight insulin formulations that vary on time-action profiles, across five regions in the US for 12 months. The analysis of the quality of insulin at the point of sale will be published by mid-2019 when it is hoped that this will ease the concerns of people with diabetes and others.

Insulin use and weight gain

There are two main reasons why using insulin can result in weight gain.

Hypoglycaemia

Treating a hypo (low blood sugar) cannot be avoided but everything used contains calories and these extra calories, albeit necessary, can end up as body fat. So, to avoid these extra calories, each hypo should be treated with just enough glucose to bring blood sugars back to normal.

The temptation is often to pick up the nearest pack of sweets or sugary drink but the best advice is to treat the hypo with 5 to 15 grams of a rapid acting sugar to bring blood sugars back to normal and only take in more if the hypo isn't resolved within 10 to 15 minutes. If you feel the need to prevent further lows, then eat longer-acting carbohydrate.

Overtreating a hypo leads to a rebound hyperglycaemia (high) which means increased doses of insulin to bring blood sugars down, which in turn,



has the potential for another hypo, followed by yet more calories and weight gain!

As we know, tight blood glucose control increases the risk of hypoglycaemia threefold so unless the hypos are treated carefully, there is the potential for weight gain with tight control. It is advisable to keep your insulin dose as low as possible to avoid hypos and subsequent risk of weight gain.

Weight gain from insulin

Insulin is a hormone that promotes fat storage and if you often end up taking too much, then it can result in increased weight as fat. Most people with Type 1 diabetes gain some weight as soon as they start taking insulin but many people have already lost weight before diagnosis, so this is not necessarily a bad thing.

Other ways to prevent weight gain when taking insulin:

- cutting back on refined carbohydrates that require more insulin to cover them,
- exercising regularly can lower your insulin needs,
- readjusting your long-acting and mealtime doses can prevent weight gain in people with Type 1 diabetes, specifically by lowering the long-acting insulin and increasing the mealtime but keeping the total daily dose the same,
- testing blood sugars regularly to avoid taking too much insulin or other weight-inducing medications.

Finally, some people find that different insulins can cause weight gain, so it is worth considering looking at alternative insulins.



THE IDDT'S LOTTERY DRAW WINNERS

We are delighted to announce the winners of the draw of our monthly lottery for August 2018. They are as follows:

- 1st prize of £519.84**
goes to Anon from Crowborough
- 2nd prize of £389.88**
goes to Anon from Birmingham
- 3rd prize of £259.92**
goes to John from Nottingham
- 4th prize of £129.9**
goes to Paul from Northampton

Winners of the September 2018 draw are:

- 1st prize of £521.76**
goes to Patricia from London
- 2nd prize of £391.32**
goes to Eric from Nottingham
- 3rd prize of £260.88**
goes to Linda from Enfield
- 4th prize of £130.44**
goes to David from Doncaster

Winners of the October 2018 draw are:

- 1st prize of £548.00**
goes to William from Solihull
- 2nd prize of £411.00**
goes to Jacqueline from Derby
- 3rd prize of £274.00**
goes to Terry from Romford
- 4th prize of £137.00**
goes to Anon. from Northwich

Note: the winners of the draws for November, December and January 2019 will be announced in our March 2019 Newsletter and will be available 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 jo@iddtinternational.org

Apologies for an error in the September Newsletter: The first prize for June should have read £504.00 not £304 but the winner did receive the correct amount.

UPDATED DEPLETION DATES FOR BEEF INSULIN

Important reminder - pork insulin continues to be available!

We have been contacted by significant numbers of people who are being told by their health professionals and doctors that pork insulin is being discontinued and they will have to change to synthetic insulins. This information is wrong! Pork insulin is NOT being discontinued and remains available on an NHS prescription. People who want to stay on it should be allowed to do so, as it is their choice.

Description	Form	Predicted depletion date
Hypurin® Bovine-Isophane	3ml Cartridges	Depleted (Dec-17)
Hypurin® Bovine-Isophane	10ml Vial	Depleted (Jul-18)
Hypurin® Bovine Neutral	3ml Cartridges	May 2019

Description	Form	Predicted depletion date
Hypurin® Bovine Lente (I2S)	10ml Vial	May 2019
Hypurin® Bovine Neutral	10ml Vial	June 2019
Hypurin® Bovine PZI	10ml Vial	October 2019

BREXIT & INSULIN

At the time of going to print, we don't know what deal will be made with the EU, or indeed, if a deal will be made at all. In terms of what happens to medicines, we have been told that pharmaceutical companies have been asked to have a minimum of 6 weeks additional supply in the UK. In publicity, insulin is frequently given as an example because the vast majority of insulins are imported from Europe, only a relatively small amount of pork insulin is made in the UK.

IDDT has written to the Secretary of State for Health and Social Care, Matt Hancock, to ask for guarantees that the government will ensure there will be an uninterrupted supply of all insulins which have been stored appropriately.

The World's largest low-carb Type 1 diabetes study

The Dietary Science Foundation in Sweden has been raising funds to carry out the world's largest study on the low carbohydrate diet and how it can affect health. The study is due to start recruiting people with Type 1 diabetes. Many people are successfully using a low carb diet and some studies have already shown that they have the potential to improve blood glucose control but a larger study is necessary to produce evidence of benefits.

According to the Foundation there are 50,000 people in Sweden with Type 1 diabetes but only 25% manage to control their blood sugars at the recommended level with standard care. So, the research hopes to show whether the low carb diet can improve control.

Healthy fats instead of carbs or saturated fats

Research carried out at Cambridge and Boston Universities has found that eating more healthy fats, like nuts, seeds and vegetable oils, while limiting animal fats and refined carbohydrates, can help prevent or control Type 2 diabetes by lowering blood sugar levels and improving insulin sensitivity.

102 trials, which included 4,660 adults, were analysed to find out how different types of dietary fat and carbohydrates affected key risk factors for Type 2 diabetes. The studies provided participants with meals with different amounts of saturated, monounsaturated, polyunsaturated fats and carbohydrates. The results showed that a diet rich in monounsaturated or polyunsaturated fat instead of meals high in carbohydrates or saturated fat helps to improve blood sugar control. The most consistent benefits were seen for increasing polyunsaturated fats in place of either carbohydrates or saturated fat.

Previous studies have estimated that each 0.1% drop in HbA1c could reduce the incidence of Type 2 diabetes by 22% and heart disease by 6.8%.

The study authors said combining the results of these trials provides the strongest evidence to date on how major nutrients alter these risks and these findings should help to inform doctors and patients. (PLOS Medicine, 19.07.16)

Eating carbs last

Be aware that this is a very small study! A study of 16 people with Type 2 diabetes found that those who ate protein and vegetables before eating carbohydrate-heavy bread and orange juice had half the increase in

blood glucose levels after the meal, compared with those who ate carbohydrates first. The findings also showed that eating carbohydrates last resulted in 40% lower post-meal blood glucose levels than those who ate all the meal components together. (BMJ Open Diabetes Research and Care, Sept 2017)

New version of Cadbury's Dairy Milk

Cadbury is to launch a different version of its Dairy Milk bar next year which will contain 30% less sugar and additional fibre. The 30% reduction in sugar will mean that 5 chunks of Dairy Milk will contain 10g of sugar instead of 14g. The full sugar version will also continue to be available and there have been criticisms with some suggesting that if chocolate is classed as a treat, is it not better to eat a small piece of the real stuff as an occasional treat?

The company is working on plans to reduce sugar in several other items including Wine Gums and Jelly Babies – important for people who use jelly babies to treat hypos.

Cadbury is the latest large brand to announce a new recipe with less sugar. Kellogg's has also recently agreed to lower the sugar content by 40% in its Coco Pops breakfast cereal.

Study links salt intake to increased diabetes risk

Research has shown that people who consumed 1.25 teaspoons or more of salt per day had a 72% higher risk of developing Type 2 diabetes than those who had the lowest intake level. Higher salt intake was also linked to a higher risk of latent autoimmune diabetes in adults (LADA). (European Association for the Study of Diabetes annual meeting 2017)

However, there seems to be some confusion about salt intake...

We have been told that we should limit our salt intake because of the risks of cardiovascular disease and stroke but research published in The Lancet adds to the confusion. The researchers followed 94,000 people aged 35 to 70 years for an average of eight years and they found an association between high sodium intake and increased risk of cardiovascular disease and stroke, but this was only in communities where the average intake was greater than 5 grams per day (about 2.5 teaspoons of table salt). However, sodium consumption in communities with less than 5 grams of sodium consumed daily was inversely associated with heart attack and total mortality. (The Lancet, August 2018)

From our own correspondents

Having your feet checked is so important

Dear Jenny,

I know you have a booklet all about looking after your feet when you have diabetes, but I thought I want to emphasise just how important this is. I went for my routine check of my feet and it showed that my heel pulse rate was very low. The podiatrist referred me immediately and I was told that this action and subsequent treatment prevented heart failure. So, from personal experience, I can only remind readers that it is very important to have regular checks of their feet.

By telephone



Faulty test strips in Australia?

Dear Jenny,

I live in Australia. IDDT's September Newsletter highlighted the problems with some batches of Accu-Chek Aviva and Perfoma test strips from Roche in the UK and giving batch numbers.

I began using the Accu-Chek Performa earlier this year and at the time I was not aware of the issue in the UK but I had repeated error messages on both pots of strips that I bought. I returned them to the chemist and fortunately they believed me and gave me new ones.

However, since then I have had intermittent unexplained high readings that are not high when I do a second reading. This has been with 5 pots over the last 5 months, and strips from the same pot giving extreme blood sugar readings.

Two weeks ago I tested before lunch and was 19.2. I did not feel I had high readings and was suspicious of this. Half an hour later I took another reading from the same pot and was 7.8. I had injected for the 19.2 and had to take action to avoid a severe hypo. Unfortunately I am quite afraid to use the Performa strips now and have gone back to my Freestyle Optium. I wanted to bring this issue with the pots to your attention as it may be a much wider problem than the batches in the UK and could be dangerous.

I have been in touch with the manufacturers but they tell me there is nothing wrong with the strips in Australia but www.ProductReview.com.au for the Performa suggests that I am not on my own with very variable readings.

Larrane Ingram
IDDT Trustee, Australia

I have Type 2 and I'm not fat!

Dear Jenny,

It is August and I have just seen a BBC report on the fact that people with diabetes are more likely to have a stroke, then show a lot of fat people walking about. I have had type 2 diabetes for 27 years and have never weighed more than 9 stones. This kind of report makes me so cross.

Sent by email

FreeStyle Libre at ASDA and Superdrug!

Dear Jenny,

Just to let you know that I am still using the FreeStyle Libre and paying for it. I have now discovered that I can buy the sensors at ASDA for £45 and at Superdrug for £40. I thought your other readers might like to know this.

**Mr M.I.
West Mids**

Can I take Aloe Vera Juice?

Dear Jenny,

I have Type 2 diabetes and I wondered if you could tell me if I can take Aloe Vera Juice twice a day.

**Mr J.R.
Kent**

Comment: This does not mean we are recommending Aloe vera as a 'cure' for Type 2 diabetes but here is some information.

Aloe vera, the plant originates from a plant that some studies have shown to reduce blood sugar levels. American researchers reviewed 9 studies exploring the plant's benefits for people with Type 2 diabetes patients. (Journal of Alternative and Complementary Medicine) They showed that taking Aloe vera as an oral supplement can reduce the level of glucose in the blood. Apparently taking it regularly stimulates the secretion of insulin. If you are going to take aloe vera juice, the maximum recommended daily dose is 50ml, while the recommended dose for capsules is 200 to 300mg per day

Do other people see an endocrinologist?

Dear Jenny,

After reading your last Newsletter about the FreeStyle Libre and insulin pumps, I am wondering how many patients with Type 1 diabetes get to see an endocrinologist on the NHS? I am being told that due to my current HbA1c being 8.1mmol/l my sugars are too good to merit seeing one. On top of that I am being denied a pump due to NICE guideline advising 8.5mmol/l.

I have hypo unawareness and recently had a hypo in a public place. The paramedics attended and referred me after which I saw an endocrinologist once, then a nurse. The nurse focused entirely on my HbA1c levels and refused to accept hypo unawareness, even though it is now on my medical records. This makes me wonder if many patients are point blank refused the help they need? Do health professionals pick and choose which parts of NICE guideline they want to use?

**By email
Leics**



More than 260,000 diabetes inpatients had hospital medication errors in 2017

This was the headline in the Guardian on October 8th and reported that according to Diabetes UK, more than a million people with diabetes were admitted to hospital in 2017 and over a quarter of them experienced medication errors. Of this, 9,600 people suffered a serious and potentially life-threatening episode of hypoglycaemia due to poor insulin management. In addition, 2,200 had hyperglycaemia (high sugars) while in hospital due to too little insulin being given.

Yes, we know that the NHS is under stress but there needs to be more training of general nurses about diabetes and more diabetes specialist nurses working within the hospital system. Better care while in hospital reduces the length of

stay and saves the NHS money.

A spokesperson for NHS England pointed out that £10m has recently been invested to increase the number of specialist nurses but adds that the long-term plan for the NHS needs to include the diabetes treatment and care plan.

IDDT comment: hospitals need to be places where people with diabetes can feel safe in the knowledge that they will be carefully and well looked after.

Expansion of electronic prescribing

The regulations for prescribing will be changed later in 2018 so that paper prescriptions are replaced with electronic ones. The intention is to save the NHS money and to save time for patients and staff. It is expected that up to £300 million will be saved by 2021 and it is said that patient benefits will be:

- less time spent visiting pharmacies and GP surgeries,
- repeat prescriptions can be

collected from pharmacies without having to visit the GP practice first,

- the worry of losing the paper prescription will be removed.

Electronic prescribing has already increased from less than 1% in June 2010 to 63% in June 2018 with over 6,000 GPs already able to upload prescriptions electronically, which can then be downloaded by a pharmacist. However, thousands of paper prescriptions are still issued each year but it is expected that ultimately nearly all prescribing will be electronic.

Gluten-free foods on the NHS

After a public consultation on the availability of gluten free foods on prescription, the government decided to restrict the prescribing of gluten-free foods to bread and mixes only. This is expected to reduce the numbers of people on lower incomes who are not able to afford to purchase

Exemption prescription certificates

In October the new Health Secretary, Matt Hancock, announced that there is to be a clamp down on people falsely claiming prescription exemption certificates which apparently will save the NHS over £200 million. It implies that everyone is fraudulently claiming when actually it may just be that people have forgotten to renew or they have failed to tell the NHS Business Authority of a change of address.

The plans include a new digitalised system to be piloted next year so pharmacists will have to check who is entitled to free prescriptions. At present, people present a certificate and/or sign the back of the prescription form to say they are exempt from charges and the NHS Business Services

Authority runs checks after the prescription items have been issued.

The Royal Pharmaceutical Society Chair, Sandra Gidley, appeared on TV to explain that pharmacists policing exemptions could harm patient trust and that many fines are issued as a result of genuine mistakes. She also pointed out that in England many people cannot afford all their medicines at the same time and ask which one is the most important for them to take, which could have adverse effects on their health and a subsequent increase in costs to the NHS. Yet in Scotland, Wales and Northern Ireland everyone gets free prescriptions.

their own gluten-free foods but it will save the NHS £2.6 million.

However, while local Clinical Commissioning Groups are expected to follow national guidance, they do develop their own policies which may differ from this national guidance.

Moving Medicine tool

Public Health England and Sport England have commissioned the Moving Medicine tool with support from National Lottery. The tool is aimed at equipping health professionals with the skills to prescribe movement and exercise so they will be able to advise patients on how physical activity can help to prevent a wide range of disease, manage their conditions and aid recovery. The aim is that equipping nurses and other health professionals with the knowledge and skills to prescribe the right sorts of movement and exercise could have life-long benefits for thousands of patients. This has been endorsed by the Royal College of Nursing.

Better support needed to help people to manage long-term conditions

Independent research by the Health Foundation has shown that 436,000 emergency hospital admissions and 690,000 A&E attendances could be avoided if people with long-term conditions were supported to better manage their conditions, including asthma, diabetes and depression. The research also found that:

- people who felt most confident, able to manage their condition and keep themselves well had 38% fewer emergency admissions, 32% fewer A&E visits and 18% fewer general practice appointments than those who felt least able,
- people who felt most able to manage their mental health conditions, as well as any physical health conditions, had 49% fewer emergency admissions than the people who felt least able,

- just 13% of patients felt knowledgeable about their health condition and confident to plan and manage their care,
- nearly a quarter (22%) were likely to feel overwhelmed by the demands of their long-term condition and not take an active role in their own care.

So, the research concludes that people need to be better supported to manage their long-term conditions and this could be through health coaching, peer support or greater access to apps that help people to manage symptoms and avoid deteriorations.

We know that with Type 1 and Type 2 diabetes, knowledge and skills through education courses are vital to give people the knowledge and confidence to manage their diabetes.

The Health Foundation are calling on NHS England to take action now and make self-management a priority in the NHS long-term plan. (BMJ Quality and Safety journal, August 2018)

For diabetes - who is entitled to medical exemption certificates?

Those using insulin or medication are entitled to exemption certificates, so free prescriptions.

People who control their diabetes with diet only are not entitled to free prescriptions.

To apply for an exemption certificate, ask your doctor for an FP92A form. Your GP (or a member of your GP practice) or hospital doctor needs to sign the form to confirm that your statement is correct. The exemption certificate is valid for 5 years or until the 60th birthday. You should be sent a reminder a month before your certificate is due

to run out but you can check online: <https://www.nhsbsa.nhs.uk/penalty-charges-dont-get-caught-out/check-you-tick>

Note: This is part of an initiative announced by government on how it will take tougher action on fraud and to save hundreds of millions of pounds for the NHS over the next 5 years. Other actions include identification of the small number of dentists and pharmacists claiming for services they have not carried out and analysis of large amounts of information to identify anomalies, unusual activity and inconsistencies in the NHS. Wouldn't you have thought that all this was in place already?

Novo Nordisk buy Ziylo and 'ground breaking treatment for diabetes'

Ziylo is a company spin-out from the University of Bristol which has pioneered a synthetic molecule that binds glucose in the bloodstream more effectively with the intention of developing a glucose-responsive insulin. This module could help to eliminate the risk of hypoglycaemia. This comes after 20 years of research at the university.

Ziylo has been bought by the biggest maker of diabetes drugs in the world, Novo Nordisk for a £623 million staged deal based on the potential success of the treatment. Novo Nordisk hopes to use the module to develop a new kind of insulin so that people with diabetes can manage their condition more safely. However, it could take 10 years before the new treatment comes to market.

Lilly submits nasal glucagon drug applications in Europe and US - update

In the last Newsletter, we published brief details of a study comparing nasal and injected glucagon but this was only a small study using 14 children with Type 1 diabetes. A further study has been reported involving 70 adults with Type 1 diabetes.

The nasal glucagon is administered in a single-use, ready-to-use device. The device tip is inserted into the nostril, the glucagon is released and it passes through the nasal cavity lining. It is as easy to use as other common nasal sprays.

Injected glucagon is in a small 'kit' and requires mixing a powder and solution before injecting into muscle. Some people find the present glucagon kits a bit difficult, especially when dealing with a severe hypo, perhaps a seizure in the middle of the night!

The participants were carefully put into hypoglycaemia and treated with either injected or nasal glucagon and the measurement used was how successful each treatment was at raising blood sugars within 30 minutes.

- Both treatments achieved a 100% success rate in achieving the required rise in blood sugar levels within 30 minutes. 97% of glucagon treatments achieved treatment success within 15 minutes.
- The time needed for treatment success was slightly shorter for the injected glucagon than the nasal glucagon. Time for treatment success was 9.8 minutes for injectable glucagon and 11.4 minutes for nasal glucagon.
- The side effects specifically related to nasal glucagon included watery eyes, nasal itching, nasal congestion, runny nose and sneezing but these were felt to be acceptable for an emergency. Both glucagon treatments had similar rates of nausea, vomiting and headaches.

Eli Lilly has submitted drug applications in Europe and the US for nasal glucagon and if approved, it will be the first nasal dry powder to treat severe hypos in adults and children with diabetes. No doubt due to its simplicity, it will be welcomed by family carers having to handle severe hypos. (Presented and the EASD, October 2018)

Frequently asked question!

There are some questions that come to IDDT on a regular basis, so here is one of them.

I have Type 1 diabetes, could my child develop it?

The presence of Type 1 diabetes varies according to age, ethnic background and geographic area. It is estimated that 24.5 per 100,000 children up to the age of 14 are diagnosed with Type 1 diabetes and the children of parents with Type 1 are at an increased risk.

- If the father has Type 1 diabetes, the increased risk is around 6%. Research in Finland has shown that the greatest increase in Type 1 diabetes occurred in the youngest offspring, aged 0 to 4 years, when the father has the condition.
- If the mother has the condition, the increased risk is around 3%.
- If a sibling has Type 1, then the increased risk is between 3 and 5%.
- If an identical twin sibling has Type 1, then there is a 30 to 50% chance.

DIABETES DIAGNOSIS

Study shows mistakes are common

A new study has shown that it is not always easy to tell if someone has Type 1 or Type 2 diabetes when they are diagnosed as an adult, even for doctors and mistakes are common.

How do mistakes happen?

In childhood, almost all diabetes is Type 1, which is an autoimmune condition where the immune system attacks the insulin-producing cells. There is a common misconception that Type 1 diabetes can only occur in children but this is not the case, Type 1 can occur at any age. As we know, Type 1 diabetes always has to be treated with insulin.

After the age of 30 there is a dramatic increase in Type 2 diabetes, the exact cause of which is still unknown but excess weight and genetics are known to play a role. It can often be managed with lifestyle changes and oral medications. After 30, Type 1 diabetes occurs in only 5% of all cases, so it is difficult to detect, however, managing Type 1 diabetes as Type 2 can result in a rapid deterioration in health and potentially life-threatening diabetic ketoacidosis (DKA).

The researchers looked at about 600 people diagnosed

with diabetes after the age of 30 who needed to take insulin and who were diagnosed between 2007 and 2017. They also looked at 220 people who were diagnosed before 30.

- Of those diagnosed after 30 years, 21% were found to have severe insulin deficiency, confirmed by the researchers as Type 1 diabetes. However, 40% of this group were not given insulin when they were first diagnosed.
- Almost half of the Type 1 group said they had Type 2 diabetes.

To add to the difficulties, years ago Type 1 diabetes did only occur in the young but now Type 2 diabetes is occurring in children. In addition, people with Type 1 diabetes are now tending to be heavier than they used to be, so could be confused with Type 2 diabetes.

Symptoms are a way of questioning the diagnosis. If, for example, someone is put on tablets and diet but they continue to lose weight, have frequent passing of urine and be unwell, then Type 1 diabetes should be investigated and insulin prescribed – the case with Theresa May.

(Carried out at Exeter University and presented at the European Association for the Study of Diabetes)

Type 1 diabetes as common in adults as in children but not always recognised

A study by Exeter scientists has shown that Type 1 diabetes is just as common in adults as in children despite it being known as a childhood disease. They maintain that 40% of all cases of Type 1 diabetes occur after that age of 30 but are often misdiagnosed as Type 2 diabetes. The study shows that Type 1 diabetes is prevalent throughout life and 50% of those identified as having Type 1 diabetes in later life were initially diagnosed as having Type 2 diabetes.

The research involved a review of 500,000 people aged between 40 and 69 taken from the UK Biobank. Their blood, urine and saliva samples were examined and their health followed for 60 years. The researchers point out that Type 1 diabetes is often not considered as a diagnosis in adults but failure to diagnosis Type 1 diabetes and give appropriate insulin treatment can be dangerous. They also added that Type 1 diabetes should be considered for anyone who is failing to respond to increasing doses of tablets, especially if they are slim. (Lancet Diabetes and Endocrinology, July 1st 2018)

Achievements

First professional boxer with Type 1 diabetes

Muhammad Ali made history on September 15, 2018, becoming the first UK boxer with Type 1 diabetes to fight professionally, and win after 4 rounds! Muhammad has spent nearly three years campaigning in order to prove to the British Boxing Board of Control (BBBC) that his diabetes would not affect him in the ring. Eventually with the support of his trainer and doctor, the BBBC allowed him to fight professionally.

He was diagnosed with Type 1 diabetes when he was 5 years old and was determined to realise his dream of becoming a professional boxer and not let his diabetes stop him, and it hasn't.



Another great achievement closer to home!

Here is a picture of Marie Coles, whose daughter, Lauren, has had Type 1 diabetes since she was 14 months old and is now 15. Marie took up running 17 months ago and this September ran her first half marathon. She decided to make it a charity run with IDDT as the chosen charity, in her words, "because IDDT has helped us as a family both in terms of education and emotional support, the latter we found lacking when we needed it in the early years."

She made it, albeit with cramp for the last 3 miles, so the medal and our thanks are well deserved. Her husband, Rob, also ran and she was supported by Lauren and her brother, Adam.



And another - 14-Mile Challenge completed for IDDT

Again, a team of 13 walked, cycled and ran 14 miles to raise awareness of diabetes for IDDT in September. The organiser, Oliver Jelley, started the 14-Mile Challenge in 2014 to celebrate the charity's 20th anniversary and the event has taken place every year since raising over £1,500 for IDDT.

Oliver started as a runner but walked in 2017 and 2018 because of a serious knee injury but having had surgery he plans to run next year. He was supported by his family, friends and colleagues and IDDT is very grateful to all of them for their continued support.



Kidney Research

Unique inflammation patterns observed in people with Type 1 diabetes

Researchers in the US have discovered that people with Type 1 diabetes have unique inflammation patterns and this could lead to treatments aimed at preventing complications.

High blood glucose levels over the long-term in people with Type 1 diabetes appear to result in chronic inflammation which can impair organs, nerves and blood vessels.

The researchers examined markers of inflammation in 89 people with diabetes-related kidney disease and 483 people with Type 1 diabetes but no kidney disease.

In those with kidney damage, 10 mediators of inflammation were elevated with proteins of two pathways significantly elevated in 40% of this group and a further 40% had moderately elevated levels.

The researchers believe that blood levels of inflammatory mediators could provide biomarkers for predicting who with Type 1 diabetes will develop kidney damage. This could mean prevention of inflammation which will delay or prevent diabetic kidney damage. However, the research has also shown that not all inflammation is the same and not all patients have the same inflammation, even if they all have Type 1 diabetes. So, it is necessary to find out the primary inflammatory markers that are increased in any given person, so these can be targeted. This is predictive, preventative and personalised medicine, something for the future... (Frontiers of Immunology, March 2018)

Low rates of kidney disease in adults with childhood-onset Type 1 diabetes

In a Norwegian study, it was observed that there were very low rates of kidney disease in adults who developed Type 1 diabetes in childhood. The researchers investigated 7,871 adults with Type

1 diabetes since childhood (diagnosed before the age of 15). They were followed up to the age of 42 or until they developed end-stage renal failure (ESRD), which is a severe complication of diabetes. This period ended in November 2015 and the results showed:

- 103 people developed ESRD (1.3% of the original group).
- The average time from diagnosis of diabetes to ESD was 25.9 years.
- In those living with Type 1 diabetes for 40 years, the incidence of ESRD was one in 20 (5.3%).
- The risk of ESRD was higher among those diagnosed between 10 to 14 years compared to those diagnosed before 10 years.
- The risk was slightly higher among men than women.
- No significant differences in terms of risk were identified among those diagnosed with Type 1 diabetes between 1973-1982 and in 1982-2012.

Study examines effect of intensive glucose control on end stage kidney disease

An Australian study found that people with Type 2 diabetes on intensive glucose control reduced their risk of end-stage kidney disease to 29 events after 9.9 years compared with 53 events among those in the standard glucose control. The study which involved 8,494 people, also revealed that the greatest effects of intensive glucose control were seen in earlier-stage chronic kidney disease and at lower levels of systolic blood pressure at the start of the study. (Diabetes Care, March 29, 2016)

Preventing the development of kidney disease

There are ways to try to delay or even prevent kidney damage and these are trying to maintain good blood glucose control and blood pressure and having annual diabetes checks so that any complications are picked up as early as possible so that any treatment can be started.



Hearing loss can be a complication of diabetes

According to the American Diabetes Association, a recent study has shown that hearing loss is twice as common in people with diabetes compared to those without the diabetes. This also applies to people at risk of Type 2 diabetes, prediabetes.

Researchers believe there are several ways that diabetes may impact hearing.

- When blood sugar levels rise, nerves in the ears break down. The blood vessels are very small and when thickened blood attempts to travel through tiny capillaries damage may occur.
- The hearing mechanism relies on special hair cells found in the cochlea. These hair cells are very sensitive and work by detecting environmental changes. It is believed that increased glucose in the blood affects the proper function of these cells.

Preventing hearing loss in people with diabetes

Hearing loss is not inevitable in people with diabetes and there are ways to prevent it.

- The most important step is to try to maintain good control of blood sugars which includes taking prescribed medications, eating a healthy diet and getting regular exercise. These recommendations are the same as trying to prevent the other more common complications of diabetes.
- Avoid smoking as smoking speeds up hearing loss by itself but the risks increase considerably with poorly controlled diabetes.

There are no official recommendations for hearing screenings for people with diabetes but if you have this problem, then you should discuss it with your doctor straight away and have it monitored.

A rare condition - Maternally inherited diabetes and deafness (MIDD)

This is a rare form of diabetes that is often accompanied by hearing loss, especially of high tones. Typically, hearing loss occurs before diabetes. MIDD is caused by mutations of certain genes found in mitochondrial DNA, part of cellular structures called mitochondria. This condition is inherited and can appear in every generation of a family and can affect both males and females, but only mothers, and not fathers, pass on mitochondrial disorders to their children. In MIDD, the diabetes and hearing loss usually develop in mid-adulthood, although the age that they occur varies from childhood to late adulthood.

Lifelong socioeconomic disadvantages could increase Type 2 diabetes risk in adulthood

A study carried out in Finland suggests where people live in poorer neighbourhoods can predict the development of Type 2 diabetes in adulthood. Certain lifestyles in childhood and adolescence can worsen glucose metabolism when growing up which can lead to Type 2 diabetes later in life.

3,467 participants were followed in this long-term study who were first reviewed between the ages of 6-18 years and followed for an average of 30 years. The researchers used the information they collected to examine 10 risk factors for Type 2 diabetes from childhood to adulthood, and the association of neighbourhood socioeconomic disadvantage. They found that the differences in risk factors were small at the beginning of follow-up but larger differences showed up as the participants grew up.

When compared to those who were less disadvantaged, people who were exposed to high

neighbourhood socioeconomic disadvantage were more likely to be obese, hypertensive, have a fatty liver and diabetes. Among other factors, they ate less fruit and vegetables from the age of six and had lower levels of exercise and increased smoking from the age of 12.

The researchers recommend that there needs to be greater awareness and resources directed to people in poorer neighbourhoods. (Online The Lancet, July 2018)

Predictors of severe hypoglycaemia in people with Type 2 diabetes

Researchers used information from the ACCORD trial to create a predictive model to estimate the five-year risk for severe hypoglycaemia among people with Type 2 diabetes. They found 17 predictors but the strongest three over 5 years were antihypertensive medication use (blood pressure medication), insulin use and intensive glycaemic management. Also included were glycaemic management, the number of years since diagnosis, age, systolic and diastolic blood pressure, waist circumference and history of hypoglycaemia in the last week. Using this information can enable doctors to be able to predict the people with Type 2 diabetes who are most likely to experience severe hypoglycaemia. (BMJ Open Diabetes Research & Care, August 2018)

People with Type 2 diabetes achieve better glycaemic control with TZDs and incretins

Researchers investigated 163,081 people with Type 2 diabetes aged between 18 to 80 years. They found that between 62% and 75% of those who had initial HbA1cs of between 9.1% to 12% were more likely to maintain HbA1c levels of less than 7.5% after six months of treatment with incretins and thiazolidinediones (TZDs), compared with those treated with insulin and sulfonylureas. The findings showed that those who took incretins and TZDs had a significantly higher chance of sustaining and achieving glycaemic control over two years. (Diabetes, Obesity and Metabolism, May 2018)

Association between maternal gluten intake and Type 1 diabetes in children

A Danish study investigated if there is an association between gluten intake in pregnant

women and the risk of their children having Type 1 diabetes. It investigated 101,042 pregnancies in 91,745 women with 67,565 pregnancies being involved in the study. A food frequency questionnaire was completed at week 25 of pregnancy. Gluten intake was based on consumption of 360 gluten containing foods. Information on Type 1 diabetes occurrence in the participants' children from 1 January 1996 to 31 May 2016, was obtained from the Danish Registry of Childhood and Adolescent Diabetes.

Results

- The average gluten intake was 13.0 g/day, ranging from less than 7 g/day to more than 20 g/day.
- The risk of Type 1 diabetes in offspring increased proportionally with maternal gluten intake during pregnancy.
- Women with the highest gluten intake versus those with the lowest gluten intake had double the risk of Type 1 diabetes developing in their offspring.

The researchers concluded that high gluten intake by mothers during pregnancy could increase the risk of their children developing Type 1 diabetes. However, they stated that confirmation of these findings is necessary. (BMJ 2018; 362, 19 September 2018)

Exercise can lengthen the honeymoon period

After diagnosis of Type 1 diabetes around 60% of people go into what is known as the honeymoon period. This is when the pancreas continues to produce insulin after diagnosis, so the injected insulin dose may need to be reduced. This phase may last a few days, weeks or months.

A new, small study carried out in the UK, has shown that people who maintained a high level of exercise during the first months after diagnosis of Type 1 diabetes had a longer honeymoon phase than those who did not exercise. The findings showed that among those that had the daily exercise, the honeymoon period lasted on average 33 months whereas in the non-exercising group, it lasted on average 6 months.

The study was only small, so larger randomised trials are needed to find out why this happens and if it is a way of delaying the progression of Type 1 diabetes. (Diabetes Medicine, 2018)

Ways you can look after your feet

While correct professional help at the right time is essential for the care of your feet, there are ways to take care of them at home to help you to prevent problems arising. Here are just some ways that can be useful.

Diabetes-Friendly Socks

Our Comfort Socks have been developed for use by people with diabetes, vascular disorders and other circulatory problems. No elastic is used in the top of the sock, relying only on the gentle control of the rib for support. We also produce a Fuller Fitting Longer Sock for people who find it difficult to wear ordinary socks. These are made with a large circumference top and are suitable for people who may be suffering from oedema, for example.



Both socks come in a range of sizes

- The Comfort Sock comes in small [4-7], medium [6 1/2-8 1/2], large [9-11] and x-large [11-13].
- The Fuller Fitting Sock comes in small [4-7], medium [6 1/2-8 1/2], large [9-12].

Both are manufactured as a unisex sock from a high quality cotton blend. They both come in a range of colours - grey, navy, white, black and beige.

The Comfort Socks retail at £8, the Fuller Fitting at £12 per pair including p&p and can be purchased from our website shop, <http://www.iddt.org/shop> or by phoning IDDT on 01604 622837.

Flexitol



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neuropad® can detect early complications of the feet which can lead to foot ulcers and even amputation. The test is completely painless and is an early warning system for your feet. Diabetes can result in the sweat glands not producing enough moisture, leading to dry and cracked feet.

A neuropad® is stuck to the sole of each foot like a small sticking plaster and left in place for 10 minutes. The pad is blue to start with and should turn pink in the presence of moisture from sweating. If the neuropad® patch stays blue, or if it turns a patchy blue/pink, this indicates that you may have some level of diabetic peripheral neuropathy and your sweat glands are not working properly.

Two test pads cost £14.99 and can be purchased from our website shop, <http://www.iddt.org/shop> or by phoning IDDT on 01604 622837.



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Diabetes can damage the nerves in your feet

This common complication can sadly lead to blisters or wounds which go unnoticed, become infected and result in difficult-to-treat ulcers and potential amputations.

In England alone, there are more than 7,000 amputations every year related to 'diabetic foot'

VibraTip, a clever tool invented in NHS, quickly and easily helps to identify nerve damage in the feet. With the help of a friend or family, regularly checking feet for loss or changes in protective sensation is possible.

If you think there are any irregularities in the way your feet feel or appear, you should always consult your doctor.



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McCallan Medical Ltd - www.vibratip.com

IDDT CONFERENCE

KETTERING

Saturday 6th October 2018



'Diabetes and the Media, Myths and Misunderstandings'

Dr Laurence Gerlis,

Dr Gerlis has been a Trustee and Medical Adviser to IDDT since its formation in 1994 and has played a big part in maintaining the availability of animal insulins. He also told the conference of his brother's diagnosis of Type 1 diabetes at the age of 13 and how his family have lived with diabetes.

In his presentation, he highlighted many of the false claims made in the media such as 'a cure for diabetes', 'media diet issues', 'food content description issues' and how issues reported about diabetes are often inaccurate, even point blank wrong or as he described them as "simply bonkers". This adds to the public's confusion especially when there is no clarification of the difference between Type 1 and Type 2 diabetes which can be exploited by the pharma industry, the press and government.

Dr Gerlis ended by saying that it is time to change the terminology as Type 1 and Type 2 diabetes have different causes, different symptoms and different management. He would like to see insulin dependent diabetes being a special case to guarantee NHS funding for state-of-the-art treatment, such as with the FreeStyle Libre because unlike many other conditions, it is a life-long affecting children and adults and it has important complications. Treatment should not be at the whim of Clinical Commissioning Groups!

The delegates recognised the points he was making as many of us sometimes feel frustrated and angry with media reporting.

Thanks

We would like to thank our two speakers for their excellent presentations. We must also thank Dr Mabel Blades, Dr Gary Adams and John Birbeck for leading the discussion groups as the delegates all appreciated having the time to discuss the issues that are important to them. It has to be said though that the postcode lottery of availability of the FreeStyle Libre was raised at every opportunity!

Neuroglycaemia

Dr Gary Adams

Dr Adams gave a description of patient and carer experiences of people living with diabetes over the last 25 – 30 years. His talk highlighted the experiences and needs of 'supportive others', the families and friends of people with diabetes or 'the carers', especially of those taking insulin.

He pointed out that the brain only works when supplied with sugar in the blood, so when a hypo occurs this sugar is reduced and the brain malfunctions. This can show itself through personality and/or behaviour changes. Not only does the carer have to handle the hypo but also the behavioural changes which can be very upsetting. While understanding that the person who is hypo is totally unaware of their behaviour, it can lead to stress, fear and anxiety for the carer.

Dr Adams highlighted that carers often know little about diabetes and have to learn along the way but they need education about diabetes and emotional support. The NHS education should include patients and carers and should include information about diet, exercise, eating times as well as dealing with hypos and any other problems that arise.

Many of the carers in the audience identified with so much of what Dr Adams said. Jenny Hirst pointed out, that the sad thing is that the situation has not really improved for carers and families of people with diabetes in the 40 plus years that she has been involved. So many people go unsupported and suffer stress, fear and anxiety some of which could be avoided with recognition of the role and needs of family carers.



SNIPPETS

'Ground-breaking' drug trials for Type 1 diabetes begins in Wales

An unnamed, investigational drug is being trialled in Wales in the hope that in the future it could help to treat Type 1 diabetes. The drug works by stimulating the regrowth of the beta cells in the pancreas needed to produce insulin. The first two people have been given the drug and so far there have been no major side effects but it is too early to tell if it is effective. The researchers plan to analyse the results soon and recruit 8 more volunteers who have had Type 1 diabetes for over 2 years. If there are positive results, it could improve the lives of people with Type 1 diabetes significantly because they may not have to depend on externally administered insulin to the extent that they presently do.

Insect consumption may improve gut inflammation

Research suggests that eating crickets may improve inflammation in the gut and its overall health. The researchers investigated whether cricket consumption was tolerable and safe and whether it changed markers of inflammation or lipid metabolism. They also assessed whether insect fibres, such as chitin, the chief component of a cricket's exoskeleton, could work as prebiotics. (Gastroenterology, August 218)

Seaweed could help to cure Type 1 diabetes

According to US researchers, material derived from seaweed could help to protect transplanted insulin-producing cells. They found 7 different versions of an alginate found in seaweed and one of the alginate materials was able to

coat and protect insulin-producing beta cells for 4 months after transplantation into monkeys. Without the need for immunosuppressant drugs, over 75% of the beta cells still functioning. The aim of the research is to find a way of safely replacing the insulin-producing beta cells that have been lost so that people will be able to produce their own insulin again. The researchers suggest that the next step could be trialling the use of the alginate material to protect donated beta cells in (the rare) cases of transplants in people with Type 1 diabetes and severe hypo unawareness.

Diabetic retinopathy severity tied to fish intake

Researchers in Singapore investigated a group of 437 Asian people with Type 2 diabetes and found that greater fish consumption had protective benefits against diabetic retinopathy. The study showed an association between the severity of diabetic retinopathy and cholesterol level, as well as a significant correlation between different retinopathy stages and fish intake. (Ocular Surgery News, September, 2018)

Diabetes 'can be kept at bay with a glass of MILK every day at breakfast time'

According to reports, Canadian scientists have found that a morning high-protein milk drink lowers blood sugar levels and reduces appetite at lunchtime, by making people feel fuller for longer. Milk contains whey and casein proteins, which release gastric hormones that slow digestion. Milk consumed with a high-carbohydrate breakfast reduced blood glucose even after lunch but high-protein milk had a greater effect. The researchers suggest that drinking high-protein milk at breakfast time cuts

the risk of obesity and Type 2 diabetes. (Journal of Dairy Science, August 2018 but it is worth noting that it was funded by the milk industry.)

Physically active middle-age men stay active as they age

A study of UK men has shown that those between the ages of 40 and 59 who were physically active were almost three times more likely to be active 20 years later. Playing sports made it even more likely that men would be physically active as they aged, and the number of men who had high levels of walking increased from 27% to 62% by the end of the study. (BMJ Open, Sept 2017)

Symptoms may indicate Type 2 diabetes up to 20 years before diagnosis

Japanese researchers studied 27,000 people without Type 2 diabetes, aged between 30 to 50, and found that changes to fasting blood glucose levels, insulin resistance and body mass index were observed up to 10 years before people were diagnosed with diabetes. Similar changes were seen before pre-diabetes developed, an indication that symptoms could be detected more than 20 years before a diagnosis of diabetes. (Journal of the Endocrine Society, October 2018)

People who walk or bike to work have lower cardiovascular risks

Research has shown that walking or riding a bike to work reduced the risk of ischemic heart disease by 11% and the risk of death from heart disease by 30%. In addition, if people also walked or rode bikes when not travelling to work had even lower risks of fatal cardiovascular disease. (Heart, May 2018)

FROM YOUR EDITOR – JENNY HIRST

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