INDEPENDENT DIABETES TRUST
Newsletter
September 2020 Newsletter, Issue 106
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'Build Back Better'

IN THIS ISSUE... DVLA guidance - CGM and the FreeStyle Libre • Water and lipid-based statins • Catching up on research • Winter is coming • and more...

At the time of writing, we don't know what the situation will be in September. All being well, our two members of staff who have been furloughed, will be back in the office and we look forward to working safely again as a team. It is interesting that during the last few months, like so many other organisations, we have learned that there are more efficient ways of working while still providing the same support for our members. It seems we are not the only ones to learn lessons as Matt Hancock, the Secretary of State for Health and Social Care, made clear when talking to the Royal College of Physicians in July.

Matt Hancock coined the phrase 'Build Back Better'

He said the pandemic provided the healthcare sector with a new appreciation of what works and what doesn't, although perhaps he should have included the government in this, not just the healthcare sector!

He said, "We've got to bottle the best", clarifying this with we need collaboration between organisations; a shared understanding that accepted truths had to be challenged if they did not help; and there has to be speed and innovation.

Lessons learned

He pointed out that lessons have been learned during the pandemic but some of what he and others in government appear to have learned, seem fairly obvious to us ordinary people living our daily lives! He said he has learned what many of us already know!

- We should value and trust people working in the NHS and Social Care as they all have a contribution to make whether care workers, porters, cleaners or clinicians.
- There is more bureaucracy in healthcare than is beneficial.
- Better joint working with the private sector and local councils.
- A health system based on the needs of the populations.
- It is clear that when health and care are delivered as a system, things work better.
- During the pandemic, there was widespread appreciation of the care sector and we need to set clear ambitions for social care so that everyone can get the care they need, at a place best for them and by carers who are recognised and rewarded.
- The pandemic identified stark inequalities in the country, such as 'it is hard to stay healthy if you are poor'.

Over 50 reforms have been mapped out of changes that have been introduced during the pandemic which come under the following headings:

- the need to put power out of the centre,
- the need to tackle unnecessary bureaucracy,
- the need to drive forward the integration of health and social care.

We have to wait and see what changes will be made once the present situation settles down into some sort of normality.

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Answers to Parliamentary Questions

from the Department of Health & Social Care

Asked about the next steps for work on covid-19 disparities and if the planned review of the effectiveness and effect of steps being undertaken by government departments will address diabetes under the planned assessment of co-morbidities....

Kemi Badenoch answered: *I can confirm that next steps work on covid-19 disparities will include diabetes as a factor to be considered.*

Asked what plans there are to conduct further research into the effect of the covid-19 outbreak on BAME populations with (a) diabetes and (b) obesity; and if he will make a statement...

Helen Whately answered: *Research will be funded to better understand and manage the health and social care consequences of the global COVID-19 pandemic beyond the acute phase. The research will focus specifically on health outcomes, public health, social care and health service delivery and to mitigate the impact of subsequent phases and aftermath. Research on the effect of COVID-19 on people with obesity and diabetes and with black, Asian and minority ethnic populations is in the scope.*

Asked what steps are being taken to help expand community podiatry services to tackle levels of diabetic foot ulceration and amputation as a result of the covid-19 outbreak. In June, Minister of Health...

Jo Churchill answered: *NHS England and NHS Improvement wrote to providers of community services on 19 March to ensure that diabetic foot clinics for high risk diabetic and vascular patients are maintained during the COVID-19 outbreak.*

IDDT has to comment that we have received more calls about footcare than any other topic. What is missed in the answer from the Minister is that the problem is not just for high risk patients but people who have not had their routine podiatry appointments and have, or are at risk of developing problems but have been unable to obtain the care they need to prevent future problems developing.

Asked about offering digital programmes to help people with diabetes...

Lord Bethell answered: *NHS England and NHS Improvement have taken several steps to promote access to digital self-management support for patients with Type 1 and Type 2 diabetes. They are currently working to widen access including by redeveloping and supporting implementation of an online, self-management support tool called 'Healthy Living for People with Type 2 diabetes' and are actively considering ways to educate the public on the importance of a healthy diet and lifestyle. They are also investing in the wider adoption of several digital interventions and commissioning a package of new online self-management courses to help people living with both type 1 and type 2 diabetes.*

DVLA...

Driving with continuous glucose monitoring and flash glucose monitoring

The DVLA issues guidance twice a year and the 2020 guidance includes the use of continuous glucose monitoring and flash glucose monitoring (the FreeStyle Libre). Studies in people with Type 1 diabetes support greater use of flash glucose monitoring to improve HbA1c, reduce the risk of hypoglycaemia and improved quality of life.

Group 1 drivers

- Group 1 drivers hold a licence to drive a motor car and a motorcycle.
- The DVLA has approved the use of CGM and flash monitoring for Group 1 drivers.
- However, it is recommended that Group 1 drivers carry blood glucose testing equipment in the car and they should test blood glucose using a finger-pricker if there is doubt or concern about glucose levels.
- As we know, CGM and the FreeStyle Libre measure glucose in the interstitial fluid (fluid in cells) and not blood glucose but the DVLA requires blood glucose testing when the glucose level is 4.0mmol/L or below, when there are hypo symptoms or when the test results are not consistent with the symptoms.

Group 2 drivers

- Group 2 drivers are those who have category C and D on their licences. Category C is for large lorries and category D is for buses.
- CGM and FreeStyle Libre systems are NOT permitted for Group 2 drivers.

Enter the IDDT Lottery now!

THE IDDT'S LOTTERY DRAW

WINNERS

We are delighted to announce the winners of our latest monthly lottery draws. They are as follows:

Winners of the May 2020 draw are:

1st prize of £578.40 goes to Yvonne from Conway

2nd prize of £433.80 goes to Anon. from Nailsworth

3rd prize of £289.20 goes to John from Nottingham

4th prize of £144.60 goes to Sharron from Doncaster

Winners of the June 2020 draw are:

1st prize of £571.60 goes to Ian from Cardiff

2nd prize of £428.76 goes to Dorothy from Newton-le-Willows

3rd prize of £285.84 goes to Diane from Warrington

4th prize of £142.42 goes to Anon. from Goring-by-Sea

Winners of the July 2020 draw are:

1st prize of £599.60 goes to Kenneth from Porth

2nd prize of £449.70 goes to Colin from Barrow-in-Furness

3rd prize of £299.80 goes to Jane from Newport

4th prize of £149.90 goes to Anon. from Walsall

Note: The winners of the draws for August, September and October 2020 will be announced in our December 2020 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 jo@iddtinternational.org

FreeStyle Libre research shows positive results

This recent study looked at the real-world experience of using the FreeStyle Libre and the impact on glycaemic control, hypoglycaemia, diabetes-related distress and hospital admissions – all very important to people with diabetes.

Clinicians from 102 NHS hospitals submitted information from Libre users collected during routine care. The information was collected from 10,370 users, 97% of which had Type 1 diabetes, about half were female and the average duration of diabetes was 16 years and average BMI was 25.2.

Results

- HbA1cs reduced from 67.5mmol/mol (8.3%) to 62.3mmol/mol (7.8%) after 7 months.
- HbA1c reduction was greater in people whose initial HbA1c was 69.9mmol/mol (8.5%) or above.
- There was an improvement in hypoglycaemia awareness and 53% of those with the higher level of hypo awareness showed a reduction in diabetes distress.
- Use of the FreeStyle Libre also showed a reduction in paramedic callouts and hospital admissions due to hypo- and hyperglycaemia.

Conclusion

The researchers concluded that use of the FreeStyle Libre was associated with significantly improved glycaemic control, hypoglycaemia awareness and a reduction in hospital admissions. (American Diabetes Association, July 2020)

IDDT Comments

The results of this study are not surprising to IDDT because we have heard all of these improvements from many people using the FreeStyle Libre. Here are the comments of just one person who wrote to us in July:

"I have recently celebrated my 82nd birthday, having been an insulin dependent diabetic for nearly 60 years, so doing quite well. My consultant has been extremely helpful with the FreeStyle Libre and I have not suffered a night time hypo since using it. It also provides greatly increased confidence with activity during the day."

However, at the same time IDDT is still hearing from people who are being refused the Libre, despite it being available on an NHS prescription and the fact that they fit the criteria. In the light of the above research, this is difficult to understand, especially for people who are being prescribed large numbers of blood glucose test strips at a cost that is greater than the costs of the FreeStyle Libre sensors would be.

Let us hope that this research is well circulated so that both patients and prescribers become aware of the advantages to their health and wellbeing but also the savings made from reduced numbers of 999 call outs and hospital admissions

THANKS TO ALL OUR MEMBERS

Like most charities, this has been and still is a difficult time financially, making planning for the future something of an unknown quantity. Therefore, we are especially grateful for the generous donations you have been sending to IDDT. Thank you too, to people who have joined the Lottery and to those who donate by monthly standing order payments to us, this regular income is very much appreciated. It all helps and also shows that what we do is appreciated!

At the same time and while we very much appreciate donations, we do understand that these are hard times for some people, so we would like to remind you that Membership of IDDT is FREE so that our Newsletter, Type 2 & You and our Information booklets are available to everyone who wants or needs them and a donation is not a requirement.

The message is simple – we are here for you!

JUST A FEW REMINDERS!

WINTER IS COMING but it could be different this year...

This is the time when we normally advise about the seasonal flu jab but at the time of writing, it is not clear what will happen this year. Usually, we remind you that the flu jab is offered first to people in 'at risk' groups which includes people with diabetes, pregnant women and the elderly.

We also usually advise you about the 'pneumo' jab - a vaccination to protect against pneumonia. This jab 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.

Note: at the time of writing, we don't know what the lockdown situation will be and who will be able to attend surgeries for the jabs. We expect that there will government announcements at some point in time but if in doubt, you should contact your GP surgery.

Students with Type 1 diabetes are eligible for government grants

Many university students with Type 1 diabetes can apply for government grants called the Disabled Students' Allowance (DSA). The grant is not just available for people with a physical disability so students with Type 1 diabetes can make a claim.

DSA provides specialist, bespoke support to help students with long-term health conditions throughout their time at university and grants are based on individual need rather than household income. For example, for students with Type 1 diabetes, the grants can be used to help to fund the cost of a fridge to store insulin, for medical devices or to fund travel costs to appointments at diabetes clinics. The DSA has:

- No previous study restrictions
- No age limits
- No means testing
- No repayments

Further details can be found at: https://www.gov.uk/disabled-students-allowances-dsas

Government adopts guidance on children and young people and shielding

At the time of writing, it is expected that schools will be returning in September. It is understandable that families have concerns, especially those where children and young people have been shielding.

In July, the UK government accepted guidance from Royal College of Paediatrics and Child Health (RCPCH) which recommends that most children and young people do not need to shield. It seems a little late to publish this but if we have to face a second wave, this guidance will allow for better decisions about who needs to shield now there is more evidence about the virus.

The guidance sets out two groups of shielded patients. Patients in Group A should continue to shield. Patients in Group B will require a case-by-case discussion to decide whether, on the balance of risks, a child should be advised to continue to shield.

- The vast majority of children and young people do not need to shield.
- The majority of children with conditions including asthma, diabetes, epilepsy, and kidney disease do not need to continue to shield and can return to school as it reopens. This also includes many children with conditions such as cerebral palsy and scoliosis, for whom the benefits of school outweigh the risk of infection.
- It is very unlikely that children under the sole care of a GP rather than a paediatric specialist should have to shield.
- Patients should only be removed from the shielding patient list by their GP or specialist doctor following consultation with the child and their family.

A statement from the Registrar of the RCPCH, reminded us that children are less affected by Covid-19, not just in the UK but world-wide, however, they have suffered from the social effects of lockdown, isolation and school closures.

STUDIES LOOK AT CONTINUOUS GLUCOSE MONITORING (CGM)

The introduction of the FreeStyle Libre has raised the profile of Continuous Glucose Monitoring (CGM) and while we are aware that the vast majority of people using it are highly satisfied, feel safer and report that their control improves, it is important that we look at what the research shows.

CGM for children with Type 1 diabetes

This study took place in 143 children between the ages of 2 and under 8 years old in 14 sites in the US with a duration of Type 1 diabetes of 3 months and over. None of them had used continuous monitoring for the past 30 days and had HbA1cs of 53 to 86mmol/mol (7.00 to 10%). They wore masked continuous monitors for up to 14 days.

- On average, participants spent the majority of the day (13 hours) in hyperglycaemia, over 10mmol/l and an average of 1 hour a day in hypoglycaemia (below 3.9mmol/l).
- Participants with minority race/ethnicity and higher parent education levels, spent more time in target range, 3.9–10.0 mmol/l and less time in hyperglycaemia.
- More time in hypoglycaemia was associated with minority race/ethnicity and younger age at diagnosis.

The researchers stated that given that both hypo- and hyperglycaemia negatively impact neurocognitive development, strategies to increase time in target glucose range for young children are needed. (First published: 24 February 2020 https://doi.org/10.1111/dme.14276)

CGM in the prevention of recurrent severe hypoglycaemia

People with diabetes who experience hypoglycaemia are at an increased risk of this happening again because of the loss of hypo warnings. This research looked at whether the use of scanning with the FreeStyle Libre compared to usual self-monitoring reduced this risk in people with Type 1 diabetes and people with insulin-treated Type 2 diabetes.

There were 59 insulin-treated participants who either had hypoglycaemia without symptoms in the study (below 3) or hypoglycaemia with symptoms (below 4). They were randomised into 2 groups for 6 months, one group used to CGM and the other to self-monitoring of blood glucose (SMBG). The main definition for outcomes was hypoglycaemia that required the assistance of another for recovery. Other outcome measures were self-reported hypos and changes in HbA1cs after 6 months.

The results showed:

- the incidence of severe hypoglycaemia was not significantly different between the two groups,
- the incidence of other recorded hypoglycaemic episodes in the groups using CGM was double that in the SMBG group,
- there was no difference in the change in HbA1c between the two groups.

The researchers concluded that although CGM is safe, it does not appear to have a role in preventing recurrent severe hypoglycaemia in at-risk people with diabetes. (Diabetes Technology and Therapeutics Vol.22, No 5, April 2020)

Evaluating the efficacy and patient satisfaction of CGM in people with diabetes

This systematic review investigated the efficacy and patient satisfaction of CGM in people with Type 1 and Type 2 diabetes. Nine randomised controlled trials were included and the results showed:

- CGM may lead to a small decrease HbA1c in certain subgroups of patients with uncontrolled Type 2 diabetes (those using multiple daily insulin injections and aged 65 years or younger).
- Patients with uncontrolled Type 1 diabetes using insulin may also benefit from CGM, when combined with a structured diabetes education programme.
- Evidence is mixed regarding CGM impact on improving time in glycaemic range, glycaemic variability and hypoglycaemia.
- CGM has demonstrated greater patient satisfaction and lower diabetes distress compared with usual care.

The reviewers concluded that CGM may lead to improvements in HbA1c in certain subgroups of people but additional benefits with CGM on time in glycaemic range, glycaemic variability, and hypoglycaemia is unclear at this time. Future clinical trials are needed to investigate the role of CGM in patients with uncontrolled Type 2 diabetes using insulin and oral antidiabetic drugs. (Diabetes Technology and Therapeutics Vol.22, No 5, April 2020)

Reminder about STEROIDS

As we have heard on the news, studies have shown that dexamethasone reduces mortality in people with COVID-19 who require ventilation or oxygen therapy. Dexamethasone is a steroid and the use of steroids can result in (i) significant hyperglycaemia in people with diabetes and (ii) new onset diabetes in those previously undiagnosed, often referred to as steroid-induced diabetes.

New guidance for Covid-19 treatment aims to ensure all inpatients on dexamethasone receive appropriate glucose surveillance and appropriate managements of hyperglycaemia. It is for use in all inpatients with COVID-19 who are treated with dexamethasone in a ward setting as it targets the greater insulin resistance in dexamethasone-treated patients.

Steroid drugs mimic the action of cortisol, a stress hormone produced by the adrenal glands, which are on top of the kidneys. They reduce the body's immune response, especially to inflammation and can cause serious problems to internal organs. For this reason, doctors prescribe them for asthma, lung disease, bowel diseases like Crohn's and colitis, for autoimmune diseases such as lupus and rheumatoid arthritis, allergies and for many other inflammatory conditions.

So, this is just a reminder about the general use of steroids – they can cause adverse effects, just one of which is the rise in blood sugars and so people with diabetes need to have their blood sugars well managed.

Water & lipid soluble STATINS

A recent study has shown that adults who took statins, both hydrophilic and lipophilic statins, had higher levels of insulin resistance compared with those who didn't take statins. The researchers based their findings on information from 609 older adults and noted that *"consideration for choosing non-lipophilic statins and avoidance of rosuvastatin and lipophilic statins may provide the intended cardiovascular protection without the increased incidence of insulin resistance"* among those at risk of diabetes. (Journal of the Endocrinology Society, June 2020)

To us ordinary mortals this needs some explanation!

Statins can be classified as water soluble (hydrophilic) or lipid soluble (lipophilic).

Water soluble statins - pravastatin and rosuvastatin

- pravastatin improves insulin sensitivity in some patients,
- rosuvastatin does not change insulin sensitivity in people with metabolic syndrome or familial combined hyperlipidemia but it increases the incidence of Type 2 diabetes. Rosuvastatin increases the rate of onset of new diabetes in a dose-dependent manner, (the higher the dose, the greater the risk).

Lipid soluble statins - apart from the above all other available statins, atorvastatin, cerivastatin, fluvastatin, lovastatin and simvastatin, are lipophilic.

- Lipophilic statins may have adverse metabolic consequences that include impaired insulin secretion and promotion of insulin resistance.
- Lipophilic statins cross the blood-brain barrier more readily and although very rare, this may lead to central nervous system complaints such as insomnia.

Muscle-related symptoms

Many people complain of muscle aches when taking statins and research has shown that they occurred with the various regimes in the following numbers of people:

- Fluvastatin XL 40 mg - 5.1%
- Pravastatin 40 mg- 10.9%
- Atorvastatin 40 to 80 mg- 14.9%
- Simvastatin 40 to 80 mg- 18.2%.

This study suggests that fluvastatin and pravastatin have less muscle related symptoms compared to the other statins studied. More recent studies indicate that rosuvastatin may be well tolerated in those who do not tolerate other statins but no head-to-head trials have been done.

Note: if you have adverse effects when taking statins, then it is worth a discussion with your doctor because there are alternatives.

Parents Part

Treatment with golimumab may preserve beta cell function

Golimumab is an anti-tumour-necrosis-factor treatment. When given for 52 weeks to children and young adults with newly diagnosed Type 1 diabetes, it was found that it may help to maintain higher C-peptide levels and preserve beta-cell function among this group when compared with a placebo. The study also showed that golimumab was associated with lower insulin requirements and higher rates of partial diabetes remission. The study involved 84 Type 1 diabetes patients aged 6 to 21. (American Diabetes Association's Scientific Sessions, June 2020)

Link between being positive and HbA1cs in adolescents with Type 1 diabetes

Gratitude journaling is daily writing down of 3 positive things. Researchers in New Zealand analysed information from 80 adolescents with Type 1 diabetes with an average age of 12.2 years.

They found that those who used gratitude journaling reported reductions in HbA1c levels from 8.4% at the beginning of the study to 8.3% after 12 weeks compared with 8.4% at the beginning and increasing to 8.9% among those with no gratitude journaling. While HbA1cs may have improved, there was no significant difference in measures of depression, self-care, stress, quality of life in the journaling group from baseline to 8 weeks. (Diabetic Medicine, July 2019)

Factors linked to glycaemic response in children with Type 1 diabetes

Italian researchers reviewed information on 1,420 children with Type 1 diabetes. They found that those with HbA1cs of 10% or lower at diagnosis had lower HbA1c levels over three years, compared with those whose HbA1c levels were high at diabetes onset, regardless of whether or not diabetic ketoacidosis (DKA) was present. There was also an association between coma at diagnosis and subsequent poor metabolic control. Therefore, preventing DKA and coma at onset, preventing high HbA1c level at onset and detecting Type 1 diabetes at an early stage could help improve HbA1c levels over the following three years. (Pediatric Diabetes, December 2019)

A vaccine to protect against coxsackieviruses could help prevent Type 1 diabetes

A common childhood infection thought to be linked to Type 1 diabetes could be preventable with a vaccine, according to a new study. Coxsackieviruses are common in children and are thought to be a possible trigger for Type 1 diabetes and this latest research found that a six-pronged vaccine could protect against coxsackieviruses. This, in turn, could help to prevent Type 1 diabetes in some people. Having shown that the vaccine reduced the risk of developing Type 1 diabetes in a type of mouse genetically prone to a condition similar to Type 1 diabetes, two companies have joined together to begin clinical trials in humans. (Press release, June 2020)

LESS COMMON TYPES OF DIABETES

Type 2 diabetes earlier in life increases retinopathy risk

Recently published study results show that adults with Type 2 diabetes between the ages of 15 and 40 years are more likely to develop retinopathy than those diagnosed later in life, suggesting that the retina in youth and young adults with Type 2 diabetes is significantly more susceptible to the development of retinopathy.

In the study of 3,322 adults with Type 2 diabetes, those with young-onset Type 2 diabetes were compared with people who were diagnosed between the ages of 60 and 70 years. The results showed:

- People with young-onset Type 2 diabetes with a duration of at least 10 years but less than 15 years were more likely to develop retinopathy than those with similar diabetes duration who were diagnosed after age 60 years but before age 70 years.
- This also applied to those with a young-onset diabetes duration of at least 15 years but less than 20 years and those with a duration of at least 20 years but less than 25 years. The researchers noted that "a similar pattern" emerged for more severe retinopathy diagnoses.
- Conversely, participants with young-onset Type 2 diabetes and diabetes duration of at least 10 years but less than 15 years were less likely to develop albuminuria and macrovascular disease than those with a similar duration of diabetes who were diagnosed after age 60 but before age 70 years.
- In those with a duration of young-onset Type 2 diabetes of at least 20 years but less than 25 years, the likelihood of these conditions was also reduced.

The researchers recommend that given the increased susceptibility to retinopathy in young-onset Type 2 diabetes, 'it would seem prudent to ensure frequent retinopathy surveillance and aggressive risk factor management for all people with young-onset Type 2 diabetes to avoid complications of retinopathy'. (Diabetic Medicine, February 2020)

Comparing the risk of microvascular complications in LADA and Type 2 diabetes

Latent autoimmune diabetes of adulthood (LADA) differs in clinical features from Type 2 diabetes. Whether this difference translates into different risks of complications remains controversial. LADA is a form of Type 1 diabetes with a slow onset which develops in older age and is often misdiagnosed as Type 2 diabetes.

This study examined the long-term risk of microvascular complications in people enrolled in the UK Prospective Diabetes Study (UKPDS), according to their diabetes autoimmunity status.

Participants with at least one detectable autoantibody were identified as having latent autoimmune diabetes (LADA) and those who tested negative for all autoantibodies as having Type 2 diabetes. The first occurrence of microvascular complications (renal failure, renal death, blindness, vitreous haemorrhage or retinal photocoagulation) was compared between adults with LADA and those with Type 2 diabetes.

Results

- There were 5028 participants included, 564 had LADA and 4464 had Type 2 diabetes.
- After an average of 17·3 years of follow-up, the microvascular complications occurred in 1041 (21%) participants. The incidence for the microvascular complications was 15·8 per 1000 person-years in LADA and 14·2 per 1000 person-years in Type 2 diabetes.
- Adults with LADA had a lower risk of the complications during the first 9 years of follow-up than those with Type 2 diabetes but in subsequent years their risk was higher than for those with Type 2 diabetes.
- Correcting for the higher updated 9-year average HbA1c seen in adults with LADA than in those with Type 2 diabetes explained the subsequent increased risk for the microvascular complications.

Conclusions

At diabetes onset, adults with latent autoimmune diabetes have a lower risk of microvascular complications followed by a later higher risk of complications than do adults with Type 2 diabetes, secondary to worse glycaemic control. The researchers state that strict glycaemic control from the time of diagnosis could reduce the later risk of microvascular complications in adults with latent autoimmune diabetes. (The Lancet Diabetes & Endocrinology, 7th February.2020)

IDDT's comment is that it is important that there is an early diagnosis of LADA and that it is not misdiagnosed as Type 2 diabetes.

Neonatal diabetes, babies can be treated with tablets instead of injections

Neonatal diabetes is a rare type of diabetes that affects babies under the age of six months. It is a genetic disorder that often requires treatment either with insulin or a drug called glibenclamide, one of the sulphonylurea class of drugs used to treat Type 2 diabetes.

Research has been directed towards investigating tablet treatment as injecting babies is very unpleasant. This latest research involved 81 patients from 20 countries starting in 2006 at Exeter University. All of them were diagnosed with neonatal diabetes and they were all switched from insulin injections to high doses of sulphonylureas.

The results

- Before the change to sulphonylurea treatment, the participants' average HbA1cs were 65 mmol/mol (8.1%).
- After 10 years of sulphonylurea treatment, their average HbA1c was 46 mmol/mol (6.4%).

This is an excellent improvement in blood glucose control and there were only mild side effects after the changeover from insulin but none of the participants needed to stop treatment. This is the first study to establish that tablet treatment in neonatal diabetes is safe and improves blood glucose control, not to mention the great improvement in the quality of life of the those with neonatal diabetes who have been treated with insulin all their lives. (The Lancet and Endocrinology, June 2018)

Gender, HbA1c, psychosocial factors associated with Type 1 diabetes-related distress

As a chronic disease, Type 1 diabetes can have a significant psychosocial impact on adolescents and this makes diabetes control more difficult. In this study, researchers completed an assessment of diabetes-related distress among adolescents with Type 1 diabetes. They looked at trends in distress levels over time and found the following:

- Adolescents with Type 1 diabetes were more likely to have persistently raised distress levels if they were female, had raised initial HbA1c levels, reported low self-care behaviours, higher levels of depression and anxiety, increased diabetes-related family conflict and showed low problem-solving ability.
- By contrast, those in the stable, low distress group were more likely to be male, have a lower HbA1c, reported low levels of depression and anxiety as well as low levels of diabetes-related family conflict and showed higher levels of self-care and problem-solving abilities.

The researchers concluded that although the study population was largely female, the results showed that many adolescents with Type 1 diabetes struggle with disease-related distress and may benefit from targeted intervention soon after their diagnosis. (Pediatrics, May 2019)

Severe hypoglycaemia associated with increasing HbA1cs in children and adolescents with Type 1 diabetes

This Danish study looked at what happens to glycaemic control after episodes of severe hypoglycaemia in children and adolescents with Type 1 diabetes from 2008 to 2017.

Included in the study were 4,244 children (51.6% boys) with an average age of 9 years and with 18,793 annual outpatient visits. The average duration of diabetes at the start of the study was 1.2 years and the average diabetes duration at the last visit was 5 years.

The results showed:

- 506 children experienced at least one severe hypo during the 9 year follow up.
- 94 children experienced one episode, 115 two hypos and 97 three or more.
- HbA1cs increased with the number of severe hypos and in the years after the first episode and peaked 2 to 3 years after an episode of severe hypoglycaemia.
- The accumulated deterioration in glycaemia control was in the range of 5% in those children and young people with 2 or more severe hypos, an equivalent to an increase in HbA1c of 4mmol/mol (0.4%).

The researchers concluded that severe hypoglycaemia was followed by a progressive and lasting increase in HbA1c among Danish children and adolescents with Type 1 diabetes. Therefore, in addition to the known risk of new episodes of hypoglycaemia and cognitive impairment, severe hypoglycaemia contributes to long-term diabetes complications. (First published in April 2020)

Coeliac disease 'frequently' asymptomatic in Type 1 diabetes

Coeliac disease along with Type 1 diabetes often displays no symptoms (asymptomatic) and this study shows that people with both diseases should closely monitor glucose levels during the change to a gluten-free diet.

The lead researcher said that coeliac diseases, a disorder triggered by gluten, is frequently unrecognized and asymptomatic, particularly in people with Type 1 diabetes and other autoimmune conditions. He also said that a significant challenge for doctors is an absence of evidence to assess the harms and benefits of screening and of treatment in people who are asymptomatic, especially in those with Type 1 diabetes.

This research screened for coeliac disease in 1,298 adults and 1,089 children with Type 1 diabetes with no symptoms of the condition, such as weight or growth changes, gastrointestinal symptoms or anaemia. It identified 51 people with biopsy-positive coeliac disease and 27 were randomly put on a gluten-free diet and 24 kept on a regular diet containing gluten for 1 year. HbA1cs were measured after 6 and 12 months and continuous glucose monitoring was used to measure post-meal glucose levels.

The results showed:

- During the study, the two diet groups had similar HbA1c levels and ranges for hypoglycaemia, euglycaemia (normal) and hyperglycaemia during the study.
- The gluten-free group experienced higher 2-hour and 4-hour post-meal glucose compared to the regular diet group, which experienced a return to pre-meal levels at 4 hours.
- In the gluten-free diet group there was a 0.3% increase in HbA1c over 12 months.

The researchers concluded that doctors and health professionals should be aware that coeliac disease is an important autoimmune condition in those with Type 1 diabetes and that vigilance is necessary during the change to a gluten-free diet. It was also noted that further long-term studies are needed to provide a better understanding of the risks and benefits of treatment of asymptomatic children and adults with Type 1 diabetes.

Reversal of Type 2 diabetes in 61% of patients

The newly published results of a clinical trial evaluating the efficacy of diet and exercise as a front-line treatment for Type 2 diabetes treatment reveal nearly two-thirds people achieved complete disease remission after just 12 months of lifestyle interventions.

This is not news because research over many years has shown that a healthy diet, plenty of exercise and losing weight helps in the management of Type 2 diabetes and can help to reverse the condition without the need for medication.

This new study involved 150 people, with an average age of 42, who within 3 years of their diagnosis, were split between a control group receiving standard care and an intervention group who followed an intensive diet and exercise programme. This programme involved an initial 12-week low-calorie diet (the Cambridge Weight Plan) followed by another 12 weeks of changing to a general healthy diet but which still had a degree of calorie counting. At the same time, this group was also encouraged to complete at least 150 minutes of physical exercise every week and walking at least 10,000 steps each day.

The results showed:

- At 12-months, those in the intervention group lost an average of 26 lb (12 kg) compared to an average of 9 lb (4 kg) in the standard-care group.
- 61% of the intervention group were no longer considered diabetic at 12 months compared with 12% reaching similar stages of remission in the standard-care control group.

The researchers say this suggests that while diet and exercise interventions benefit everyone with Type 2 diabetes, the sooner that the interventions are introduced after diagnosis and the younger the person, the more effective they are. They also point out that early screening for Type 2 diabetes is important. (The Lancet Diabetes & Endocrinology, June 2020)

Bits - & - Pieces

A saliva test may be able to monitor diabetes

Brazilian researchers have carried out research that shows that a more cost-effective and non-invasive method of monitoring diabetes could be possible using a system called attenuated total reflectance Fourier transform infrared spectroscopy. It uses saliva instead of blood. The researchers performed laboratory tests of the saliva process with an accuracy rate of 95.2%. (Plos One, April 2020)

Metformin may benefit people with Parkinson's and diabetes

Researchers compared treatment with and without metformin in adults with both diabetes and Parkinson's disease. They found that those who took metformin performed significantly better on tests assessing motor and non-motor function, as well as on certain measures of cognitive impairment compared with those who did not take metformin. It was a small study but the researchers say the study indicates a potential protective effect of metformin in Parkinson's disease. (Congress of the European Academy of Neurology, May 2020)

Liquid glucagon to prevent exercise-induced hypos

A novel ready-to-use liquid stable glucagon was effective in maintaining euglycaemia (normal levels of blood sugar) during prolonged, continuous and intense aerobic exercise in people with Type 1 diabetes. Canadian researchers evaluated the safety and efficacy of this novel ready-to-use liquid stable glucagon (RTUG; Xeris Pharmaceuticals) for the prevention of hypoglycaemia brought on by moderate-to-high intensity aerobic exercise. They also said that ready-to-use liquid stable glucagon may help achieve less post-exercise hyperglycaemia compared with consuming carbohydrates. (Diabetes, June 2020)

Pancreatic cell transplantation improvement for Type 1 diabetes

Islet cell transplantation involves moving cells from a donor pancreas into another person and when it works it can be very beneficial. However, it is a long and complicated procedure and often many of the cells fail to graft and die.

Researchers at Geneva University Hospitals have found a way to make the cells more robust so that they are more likely to adapt to their new environment. In mice, they added a form of stem cell taken from the placenta and found that they can help to improve the outcome because the transplanted cells engraft better and start producing insulin more quickly. The next step is to carry out a trial on human beings. (November 2019)

Exposure to common plastics may increase Type 2 diabetes risk

Bisphenol A (BPA) is a chemical frequently used in disposable water bottles and takeaway containers and it is so common that traces are found in the urine of 95% of the population. An Australian / French study has also suggested that BPA could be a factor in the development of Type 2 diabetes.

The BPA levels of 755 people were followed over 9 years and the researchers discovered that participants with raised levels of BPA in their urine were more than twice as likely to develop Type 2 diabetes than those with low levels. This finding took into account food intake, weight and physical activity. Similar results were also found for bisphenol S (BPS), a substitute for BPA.

The researchers suggested that the chemicals seem to change how the body regulates insulin by disrupting the normal pathways and this gives rise to insulin resistance. They recommend that consumers stop re-using takeaway containers and drink from metal water containers to avoid consuming BPA plastic. However, governments and scientists are not in agreement as to how much of a risk BPA presents to public health. American and Australian authorities insist it is safe at normal exposure levels but it is banned in France. (Environmental Health Perspective, November 2019)

Explaining the reversal of Type 2 diabetes

In some people, Type 2 diabetes can be reversed. An article in The Lancet, Diabetes & Endocrinology, explained why Type 2 diabetes can be reversed. Studies have shown that Type 2 diabetes is a condition caused by excess fat accumulation in the liver and pancreas. This excess fat worsens the liver's response to insulin and this leads to the increased production of glucose. In addition, it seems that the insulin producing beta cells enter a survival mode and fail to function because of fat-induced metabolic stress.

In many people, with substantial weight loss from these organs, the liver insulin responsiveness can recover and in the early years after diagnosis, there can be beta cell recovery of insulin secretion. Together, these changes can normalise blood glucose levels.

The Diabetes Remission Clinical Trial showed that 46% of people with Type 2 diabetes achieved remission after 12 months and 36% at 24 months due to weight loss.

Exercise lowers cardiovascular risk in older adults

A study has shown that sedentary adults aged 60 and over who began exercising once or twice a week had a 5% lower risk of cardiovascular events, such as a heart attack or stroke, compared with those who remained sedentary. Adults who exercised three to four times a week reduced their risk by 11% and this association between heart risk and exercise also applied to people who had disabilities and chronic conditions such as hypertension, high cholesterol and diabetes. (European Heart Journal, November 2019)

"... and ever thanks"

by Arthur Williams & Sharon Fishwick

When on holiday in the Baltic some years ago, I discovered an interesting tradition; I seem to remember that it was in Latvia. At the end of Winter, it is traditional to wear a small red and white tassel to celebrate "survival" and to look forward to Summer. It occurred to me, that although there has been untold suffering and distress during the past months, there is much to be thankful for, on many levels. It is hard to know where to begin. Front line workers in all the vital services must take pride of place. Without their dedication it is impossible to imagine the outcome for all of us.

In our own daily lives, many of us are dependent on the willing help and support provided by family, friends and carers. Apart from regular help with shopping, collection of medicines and so forth, innumerable small acts of kindness continue to give us strength and hope. Gifts of plants, fresh garden produce and perhaps some naughty sticky buns can make a difference. All of these kind acts build into a sustaining platform of kindness, on which we can build resilience and fortitude.

How to recognise these many generous and diverse contributions to our wellbeing, and indeed survival, was a question that perplexed me. It was then that the tradition mentioned above came to mind. I felt something was needed that was both an outward show of thanks, and that could be used as a small gift to express thanks to an individual on a personal level. Having met Sharon through St. Oswald's Church, and realised that she had great creative skills, together we decided to try to design an image (see picture) that would convey thanks and hope in an accessible way. A badge seemed the best way to do this.

We hope that this fairly basic item will convey an effective and sincere message. Our fervent hope is that this idea will be received in a positive way, which will be best demonstrated by a donation (min £1) and can be posted out on receipt of an SAE 'large stamp' details from sharongfishwick@gmail.com The badge measures 38mm diameter. All profits will be donated to the InDependent Diabetes Trust and after our first five days we have already raised and donated £100. We have both been overwhelmed by the generous and positive nature of people locally and would like to extend the offer to those of you who, like Sharon, are dependent on pork insulin or have a friend or family member who are and would like to support IDDT for their amazing work over the years.

People will, I am sure, recognise the wording on the image. It is, of course, from Twelfth Night: **"I can no other answer make but thanks and thanks and ever thanks."**

More than 237 MILLION medication errors made every year in England

A recent report shows that more than 237 million medication errors are made every year in England. These errors are classed as 'definitely avoidable' and cost the lives of 1,700 people. In financial terms, this unavoidable cost to the NHS is upwards of £98 million.

To obtain these figures the researchers calculated the number of opportunities for medication error by stage and setting - primary care, care homes, hospitals and at the point of discharge. They used published statistics on the annual number of medicines dispensed and bed occupancy data and numbers of care home residents for the whole of England for one calendar year.

Errors are made at every stage of the process

Over half (54%) of errors are made at the point of administration, around 1 in 5 made during prescribing (21%) and dispensing accounting for 16% of the total.

- Error rates are lowest in primary care but because of the sector's size, these account for nearly 4 out of every 10 (38%).
- Error rates are highest in care homes (42%), despite covering fewer patients than the other sectors.
- Around 1 in 5 medication errors are made in hospitals.

How serious are the errors?

- Nearly 3 out of 4 medication errors (72%) are minor.
- Around 1 in 4 (just under 26%) have the potential to cause moderate harm.
- Just 2% could potentially result in serious harm and around a third (34%) of these potentially harmful medication errors are made during prescribing in primary care.

NB: these calculations did not include medication errors made by patients.

The medicines most often implicated in hospitals

Evidence shows that the medicines most often implicated in medication errors in hospital admissions are:

- non-steroidal anti-inflammatories (NSAIDs),
- clot busters (anti-platelet drugs),
- drugs to treat epilepsy,
- drugs to treat low blood glucose,
- water tablets (diuretics),
- inhaled corticosteroids,
- certain types of heart drugs (cardiac glycosides and beta blockers).

The researchers comment that with the numbers of medicines people take now (polypharmacy), it is unsurprising that there are high numbers of medication errors.

It's a global issue

The harms caused by medication errors have been recognised as a global issue due to increasingly complex healthcare needs and the introduction of many new medicines.

The estimated error rates for England are similar to those reported for the US and EU countries. This has led to the decision of the Department of Health and Social Care to commission a new system to monitor and prevent medication errors. The World Health Organization (WHO) aims to halve the level of severe avoidable harm associated with medication errors between 2017 and 2022. (BMJ Quality & Safety, July 1st 2020)

The National Paediatric Diabetes Audit (NDPA) 2018/19 Annual Report on

Care Processes and Outcomes

The NPDA analyses information provided by health care professionals about the wellbeing of children and young people with diabetes being cared for in paediatric diabetes centres in England and Wales.

During the Audit year, the report found improvements in blood glucose levels following a steady downward trend over the last 10 years. HbA1c, a marker of blood glucose levels, has improved from a country average of 64.0 mmol/mol (8%) to 61.5 mmol/mol (7.7%) between 2017/18 and 2018/19, a reduction which considerably reduces the risk of diabetes complications developing.

There have also been improvements in the completion rates for the NICE recommended health checks with almost 90% being performed within the audit year. The percentage of young people aged 12 and above receiving all the recommended checks for Type 1 diabetes increased from 49.8% in 2017/18 to 55.2% in 2018/19.

However, this latest NPDA report still shows evidence of continuing variability in these measures across the different centres. It adds that some of the variation can be explained by differences in deprivation and ethnicity but the majority remains unexplained, although these are being investigated.

The report also shows a rise in the use of various technologies with almost 40% now using an insulin pump but there remain inequalities in access to such equipment. The gap between pump usage amongst children and young people with Type 1 diabetes living in the most and least deprived areas has increased from almost 8% in 2014/15 to just over 13% in 2018/19.

The report also shows the numbers of children and young people with Type 2 diabetes receiving care continues to rise with 790 being registered to the NPDA in 2018/19. For many children, the development of Type 2 diabetes can be prevented with lifestyle changes but families need support to make these changes. This highlights the need for urgent action from government to help them lead healthier lives.

The National Paediatric Diabetes Audit is funded by NHS England and the Welsh Government and commissioned by the Healthcare Quality Improvement Partnership.

For the ladies

Assisted reproduction increases the risk of gestational diabetes

A Greek study has shown that assisted reproductive techniques, such as in vitro fertilisation, puts women at an increased risk for gestational diabetes, compared with natural conception. Researchers reviewed 38 studies involving nearly 2 million women and said the increased gestational diabetes risk may be tied to progesterone use during the luteal phase and the first trimester of pregnancy. (Presented at the 2019 European Association for the Study of Diabetes annual meeting)

Taking antidepressants may increase the risk of gestational diabetes

Research in Quebec has shown that pregnant women who took antidepressants were at a 19% increased risk of developing gestational diabetes compared with those who did not take any antidepressant. More than 230,000 women with and without gestational diabetes were included in the study and the researchers found that using antidepressants for a long time was associated with a 29% higher risk of gestational diabetes but taking the drugs for a short period was tied to a 15% increased risk. (BMJ Open, October 2019)

Cancer screening rates lower among women with diabetes

A review of 37 studies carried out over the last 20 years has shown that women with diabetes are less likely to attend cancer screening appointments than women without diabetes. The research did not look at whether this differed between the different types of diabetes but suggested that the demands of managing diabetes may have an impact on women with diabetes and/or their health professionals.

The analysis showed:

- women with diabetes were 24% less likely to undergo a smear test which tests for cervical cancer compared to women without diabetes,
- attendance for mammogram tests to screen for breast cancer were also lower by 17% for women with diabetes,
- a 4% lower likelihood of women with diabetes attending colorectal cancer screening but men with diabetes had similar rates of colorectal cancer screening compared to men without diabetes. (Diabetologia, November 2019)

Annual General Meeting

We have been holding our Annual General Meeting (AGM) at our Annual Event but as this had to be postponed to 2021 due to the pandemic, we are planning to hold the AGM on the afternoon of November 19th 2020.

The AGM will be held at the Kettering Park Hotel starting with a sandwich lunch at 12.30pm and will be limited to the business of the AGM. Clearly, if the pandemic situation changes, this will not happen. To attend the AGM, you will need to book a place by telephoning IDDT on 01604 622837.

This is the opportunity to nominate new Trustees. We have a full quota of health professionals but if you would like to nominate someone to stand as a Trustee, then please get in touch with Jenny on the above telephone number or email jenny@iddtinternational.org

We hope that we are able to hold the meeting but obviously, this will depend on the pandemic situation.

Conference 2021

As we said in the last Newsletter, we had to cancel IDDT's Annual Event this year due to the pandemic. Just to remind you that, all being well, we plan to hold this Event on Saturday, April 17th 2021 at the Kettering Park Hotel, our usual venue. We will be providing more information and the programme in our December Newsletter, but in the meantime, keep the date for your diary.

'Thinking about Christmas'

Included with this Newsletter is a leaflet entitled, 'Thinking about Christmas' and although it seems early, Christmas and the New Year will be here sooner than we can imagine. With the leaflet you can order IDDT Christmas cards, the Diabetes Diary 2021 and for the first time, IDDT's Shopping list.

This Shopping List has magnets on the back to attach to your fridge for easy jotting down and so it will not get lost! On one half of the page you plan your meals for each day and on the other 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 booklet, "Diabetes Everyday Eating".

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

Dream Trust – a report from Dr Sharad Pendsey

Some of our members sponsor children and young adults at Dream Trust, a clinic run by Dr Sharad Pendsey and his wife in Nagpur, India and as you will have seen, India has been hit by the coronavirus. Dr Pendsey has kept in touch throughout the difficulties and your sponsorship money will have helped. Here is his latest report.

"In India nationwide lock down has been lifted partially. This has led to more inflow of children with Type 1 diabetes to our clinic to collect insulin. On talking to some of the parents, we have realised that families are facing severe economic crises. Some of them have lost jobs, daily wages etc. Those running small businesses like selling toys, clothes and essentials to nearby villages or running the tea stall, salons etc. were out of business during lockdown. Government is, however, supporting them by providing rice, wheat, pulses and other grocery items.

Dream Trust is planning to extend financial support to about 300 families with children with Type 1 diabetes of about 15,000/- INR to tide over the crisis for next 2-3 months, by then the economic recovery is expected. This money will be given from the savings made by Dream Trust and is not an appeal to donate money for Dream Trust."

From our own correspondents

We haven't forgotten about pork insulin, though others have!

During these difficult times, we received calls from people in the UK who, yet again, are being told that pork insulin is no longer available and they must change to a 'modern' insulin. This is NOT the case!

This may have been heightened by an article by Dr Choudhary in Balance, the magazine of Diabetes UK, about research into loss of hypo awareness. It caused Karen, one of our members to write to Dr Choudhary and she is happy for IDDT to publish the letter.

For those with loss or partial loss of hypo warnings, it is well worth a read!

And a note for Canadian readers – pork insulin is still available in Canada

There have been reports that some people in Canada have been unable to obtain their Hypurin pork insulins from their usual pharmacy

At the time of writing, if you are unable to obtain your Hypurin Pork insulin, please advise your pharmacy that it is available from a couple of other wholesalers but it can also be ordered by pharmacies directly by email to wockhardt@nucro-technics.com The minimum quantity is 4 vials, the cost is $99 per vial and payment can be made by cheque or credit card.

To Dr Choudhary,

Hypo unawareness

I have been meaning to write to you since reading the article in Balance magazine (issue 286), which informed of the research investigating why the brain stops recognising hypos.

I have had Type 1 diabetes for nearly 40 years and during the eighties was automatically swapped from pork insulin to human insulin. This immediately resulted in no hypo warnings, for example whilst talking to a bank cashier, I became severely hypo (sweating profusely and confused, whereas previously I would have had other symptoms first). I lost confidence in my ability to control my diabetes. I requested to return to pork insulin and although the consultant said it would make no difference, within two days I once again had my usual warning signs return. These consist of sensations in whichever part of my body I am using, for example legs whilst walking, mouth whilst talking. If I hypo during the night, sweating is often the first sign as it has been allowed to go further without being checked. However, I am able to treat the hypo accordingly. The only times I have required assistance were whilst not on pork insulin.

When analogue insulins came onto the scene, I was persuaded to change from pork insulin as it would improve control and allow new regimes. Once again, I lost the hypo warnings which allow me to trust how I feel and maintain control. I of course returned to pork insulin but adapted to a basal/bolus regime allowing extra time for the pork quick acting insulin to work compared to analogue insulins. I continue to use pork insulin and despite nearly 40 years of diabetes have retained hypo warning signs.

With the arrival of Freestyle Libre and other devices, monitoring and maintaining blood glucose levels has become easier. However, the hypo warnings remain so important.

The research you are conducting is greatly appreciated, but in addition have you considered transferring some of those individuals who have lost warning signs onto pork insulin which appears to work differently?

I am aware that I am in the minority, but there are plenty of other people who have had the same experiences as myself. I hope this is of interest to you and would appreciate your response.

Karen M.

INDEPENDENT DIABETES TRUST

SNIPPETS

Dancing may promote wellbeing in older adults

Research has found that when granddaughters danced with their grandmothers for 15 minutes per week it lifted the spirits of the elderly relatives and strengthened family bonds. The researchers concluded that with an activity as simple and accessible as free-form dancing, aging populations can improve their physical and mental health and also connect with their loved ones. (Frontiers in Psychology, April 2020)

Obesity affects Type 2 diabetes risk more than genetics

Research has shown that people with obesity had about a six times greater risk of developing Type 2 diabetes compared with those at a normal weight. However, it also showed that people with a high genetic risk were only twice as likely as those with low genetic risk to develop Type 2 diabetes. The researchers said the study highlighted the importance of weight management to prevent Type 2 diabetes. (Diabetologia, April 2020)

Black seed oil improves glycaemic control

Black cumin oil extracted from the seeds of the nigella sativa plant could reduce HbA1cs by increasing insulin production, glucose tolerance and beta cell proliferation according to a study carried out in Indonesia. The findings also showed that the seeds of nigella sativa could help treat several diabetes complications including neuropathy, nephropathy and atherosclerosis. (British Journal of Pharmaceutical Research, 24 June, 2020)

Late dinner may reduce fat burn and increase blood glucose

A small study using healthy volunteers found peak blood glucose levels were about 18% higher and fat burn about 10% lower after eating a meal at 10pm shortly before bedtime when compared with having it at 6pm. The message is clear, don't have a big meal before going to bed! (Journal of Clinical Endocrinology & Metabolism, June 2020)

Diabetes linked to higher hip and non-vertebral fracture risk

A recent study found that diabetes was associated with an increased risk of hip and non-vertebral fractures. The hip fracture risk was higher for those with Type 1 diabetes than those with Type 2 diabetes. In addition, the study also showed that those younger than 65 with either Type 1 or Type 2 diabetes had a higher risk for hip fracture as did those with Type 2 diabetes treated with insulin and with longer duration of the condition. (Bone, June 2020)

Plant-base diet may reduce the risk of gestational diabetes

Women who had the healthiest plant-based diet before pregnancy had a 30% lower risk of gestational diabetes when compared with those who had the least healthy plant-based diet. The researchers said, "It is crucial to identify novel modifiable risk factors that we can act on to prevent gestational diabetes". (American Diabetes Association's Scientific Sessions, June 2020)

The link between hypos and cardiovascular disease in Type 2 diabetes

This study compared people with Type 2 diabetes who had more than 5 hypoglycaemic episodes per year with those with Type 2 diabetes but had less than 5 hypos per year. It found that those who had more than 5 hypos a year had a 61% higher risk of suffering from cardiovascular events, especially cardiac arrhythmias and cerebrovascular accidents compared with those with less than 5 hypos per year. It also showed that people with Type 2 diabetes with over 5 hypos per year were more likely to be 65 years or older and slightly more likely to be taking insulin. (American Diabetes Association's virtual Scientific Sessions, June 2020)

Gut microbiome composition linked to paediatric Type 1 diabetes

Children recently diagnosed with Type 1 diabetes had a significantly higher amount of gut bacteria associated with the onset of diabetes compared with children without diabetes. The study used analysis of information from 56 children with and without Type 1 diabetes. (Journal of Clinical Endocrinology & Metabolism, July 2020)

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