



## Welcome... to the first Newsletter of 2020!

DATE FOR YOUR DIARY!

Our IDDT Event this year will be held on Saturday, October 17th 2020 at the Kettering Park Hotel. More details will be in our June Newsletter!

### IN THIS ISSUE...

Looking after your kidneys • National Audit Report • Diabetes and mental health  
How Norway has reduced sugar content • Facts about sepsis • and more...

**In this edition we have tried to keep you updated with the latest developments in the diabetes world, even if completion of some of these may seem a long way in the future. At the same time, we have tried to cover some of the practical aspects of living with diabetes such as proposed changes in the NHS, the NHS long-term plan and the impact of the BREXIT decision on our insulin and medications during 2020 as well as travel arrangements.**

We are all aware that there are many different diets around, some of which are classed as 'fad' diets, so we cover a report on what are classed as the best diets for the forthcoming year. A panel of 25 judges have taken into account how diets perform in terms of being safe, sensible and, importantly, backed by sound science. In addition, the 'best' diets had to include balance, maintainability, palatability, family-friendliness, sustainability,

along with healthfulness. The diets are not specific to diabetes, but we know that many people with diabetes are no longer following a specific diet and there is much debate about which diet is best. It often seems to be forgotten that evidence from research should be a deciding factor on which diet is best and not simply short-term studies of 6 or 12 months. What are the effects of these diets in the long-term, say over 20 or 30 years? Are they healthy? Do they lead to specific adverse effects?

In addition, this Newsletter includes an article about how Norway has very significantly reduced the sugar consumption of their population. Their government has taken brave steps in terms of legislation about sugar content and advertising rather than just voluntary action and it has worked. Perhaps, lessons for the UK and many other countries.

Finally, at the start of this year, we would like to ask you what you

would like IDDT to do. Whether you are a long-standing member or are comparatively new to IDDT, many of you will know, that one of our founding principles is that we are here to support our members. With that in mind, we would like to ask you, what we can do for you – you support us and we always want to return the favour.

We have limits as to what we can do, so things like fundraising by climbing Everest is not really an option. However, what we can do is ask you to let us know what is important to you so that we can try to support you and those around you as best we can. Your thoughts and contributions are important to us and we value them greatly, so please get in touch and let us know what we can do to support you and the diabetes community.

We look forward to hearing from you by phone: 01604 622837, by letter to: IDDT, PO Box 294, Northampton NN1 4XS or by email: [jenny@iddtinternational.org](mailto:jenny@iddtinternational.org).

# WHAT'S NEW?

## Breakthrough device – bionic pancreas system

In the US the Food and Drugs Administration (FDA) has granted Breakthrough Device designation to the iLet Bionic Pancreas System. This is a wearable device designed to automatically control blood sugar levels in people with diabetes and other conditions. This pocket-sized device is similar to an insulin pump but it only requires the users to enter their body weight to start the therapy.

The system can be configured to function as an insulin-only, glucagon-only, or a bi-hormonal bionic pancreas using insulin and glucagon. More information can be found by visiting [betabionics.com](http://betabionics.com)

## Implantable 'micro-pancreas' which can produce insulin in response to blood glucose levels

This device which is implanted under the skin, combines cells and a biological scaffolding, which situates those cells and mimics their natural environment. The engineered micro-pancreas would be implanted into someone with diabetes and work as a replacement pancreas for insulin functions. The company says it would cost \$40,000 per implant and it would last for two years after which it could be replaced.

Israeli scientists in Betalin Therapeutics have tested the technology on mice and have proved the concept works and is now looking to raise funds to put it through clinical trials. Ten other companies are working on a similar idea.

## Encouragement to develop biosimilar insulin in the US

The FDA has announced new draft guidance designed to help encourage the development of insulin products for people with Type 1 and Type 2 diabetes, part of a broader plan to increase market competition to lower costs for patients and payors and to increase access and choice. The draft guidance has taken into account the stakeholder feedback provided at the FDA's May 2019 public hearing on this topic when stakeholders provided input on developing biosimilar and interchangeable insulin products.

The draft guidance recommends that, under certain circumstances, a comparative clinical immunogenicity study would not be necessary for approval of certain proposed biosimilar and interchangeable insulin products.

The recommendations may result in a more efficient development programme that could bring biosimilar or interchangeable insulin products to the market more quickly.

In the US, there are currently two biosimilar insulins approved - Basaglar (Lilly), a follow-on to glargine (Lantus, Sanofi) approved in 2015 and Admelog (Sanofi), a follow-on to insulin lispro (Humalog, Lilly) approved in 2017. (November 2019)

## A £2.50 blood test could predict risk of kidney and heart disease

Researchers at Glasgow University have developed a blood test to better measure the risk of both kidney and heart disease called the cystatin C test. It is hoped that it will be adopted as the primary method of diagnosis of chronic kidney disease, especially in people with risks of heart disease such as diabetes, hypertension or obesity.

The researchers looked at records from over 400,000 patients in the UK Biobank and investigated three different kidney tests to see which one gave the most accurate prediction of heart disease. The cystatin C was best at predicting cardiovascular risk compared to the more commonly used serum creatinine test.

Cystatin C itself isn't new and has been available in UK NHS labs for over 10 years but it hasn't been part of regular testing when looking for changes to kidney health. (Nature Medicine, November 2019)

## EU and FDA expands indication for Toujeo to children with Type 1 diabetes

The European Commission and the FDA in the US have approved an expanded use for Sanofi's Toujeo insulin glargine (300 Units/mL), allowing it to be used in children aged 6 years or older with Type 1 diabetes. Results from a Phase III study of 463 children and adolescents with Type 1 diabetes aged 6 to 17 demonstrated a noninferior blood glucose reduction after 26 weeks of treatment when compared to Lantus (glargine 100 Units/mL). Noninferior means that Toujeo was neither better or worse than Lantus 100, so all this approval offers is another choice of treatment. (December 2019)

## The discovery of a new insulin could improve the delivery of insulin, especially for pumpers

A non-fibrillating form of human insulin, called glycoinsulin, has been developed by Australian researchers. It could prevent the formation of fibrils (clumps of insulin), even at high temperatures and concentrations and so improve the delivery of insulin, especially for people using pump therapy.

Although an arguably more convenient form of insulin delivery than a pen for injections, insulin pumps can still experience problems. A common problem for pumps is blockages in the insulin delivery line preventing the normal delivery of insulin which can lead to under-dosing. Fibrils are one of the causes of these blockages.

There could also be a cost saving because presently infusion sets should be replaced every 24 to 72 hours to prevent fibrils developing but there will be a significant saving if the usage time can be extended to 6 days – estimated to be \$1 billion in the US alone. (Journal of the American Chemical Society)



## Non-injectable glucagon

In a press release from the European Medicines Agency, it was announced that the human medicines committee (CHMP) has recommended granting marketing authorisation for Baqsimi (glucagon). This is the first treatment for severe hypoglycaemia that can be administered without an injection to people with diabetes aged four years and older. (November 2019)

Severe hypoglycaemia is when the level of sugar in the blood drops to a level where the person becomes confused or unconscious and requires assistance from another person to administer a medicine. If left untreated, it can lead to serious consequences, including seizures, coma, adverse cardiovascular outcomes and even death.

Injectable glucagon increases blood sugar levels in the body by stimulating the liver to release stored glucose into the bloodstream and is currently the only treatment option for extremely low levels of blood sugar outside a hospital or emergency medical setting.

Baqsimi comes in a single-use dispenser which is ready to use and can be administered through the nose by caregivers. Patients do not need to inhale or breathe deeply after dosing, enabling drug delivery even in unconscious patients.

In two studies of 83 and 70 adults with diabetes with insulin-induced hypoglycaemia, Baqsimi adequately increased blood sugar levels within 30 minutes of administration and was as efficient and safe as injected glucagon with similar results in children with Type 1 over the age of 4 years.

The most commonly reported adverse effects were similar to injected glucagon - headache, nausea, vomiting with the addition of upper respiratory tract irritation, watery eyes, redness of eyes and itchiness because of the way it was injected.

This new form of glucagon will be welcomed by many of us because in the panic of a severe hypo, preparing the injectable glucagon can be quite a process!

# National Diabetes Audit Report 1

## Care Processes and Treatment Targets 2018-19

This short report is part of the National Diabetes Audit for England and Wales and the key points are as follows:

In England, the percentage of people who had all eight care checks during 2018-19 was 40.8% for people with Type 1 diabetes (42.9% in 2017-18) and 54.3% for people with Type 2 and other diabetes (58.8% in 2017-18).

In Wales, the percentage of people who had all eight care checks during 2018-19 was at 23.3% for people with Type 1 diabetes (24.7% in 2017-18) and 44.7% for people with Type 2 and other diabetes (45.9 per cent in 2017-18).

In Wales, the percentage of people who met the new all three treatment targets during 2018-19 was 15.1% for people with Type 1 diabetes (15.2% in 2017-18) and 33.6% for people with Type 2 and other diabetes (35.0% in 2017-18).

In England, the percentage of people who met the new all three treatment targets during 2018-19 was 19.6% for people with Type 1 diabetes (18.9% in 2017-18) and 40.5% for people with Type 2 and other diabetes (40.2% in 2017-18).

The targets are HbA1cs of 58mmol/mol or less, blood pressure of 140/80 or less.

### What do these figures tell us?

People with Type 1 diabetes are not receiving as many checks as people with Type 2 diabetes and we have to ask why? Is it because more people with Type 1 are treated at hospital diabetic clinics and here not so many checks are taking place? In addition, it has to be of concern that less people with Type 1 or Type 2 diabetes had the full number of checks last year than the previous year and the number of people achieving the three targets did not significantly improve.

### What can you do to make sure you receive the essential key checks?

At your annual review, ask if all 8 tests have been carried out, if not ask why not and if necessary, ask for the tests to be carried out. Some of IDDT booklets have a chart for you to mark which tests have been carried out, when and the results. If you would like one of these, just contact IDDT by telephone on 01604 622837, email [enquiries@iddtinternational.org](mailto:enquiries@iddtinternational.org) or by post to IDDT, PO Box 294, Northampton NN1 4XS.

# WORLD HEALTH ORGANISATION

## WHO looks to expand access to insulin

Only about half of the 65 million people worldwide with Type 2 diabetes who need insulin can access it. The World Health Organization (WHO) has announced the creation of the first prequalification programme for insulin manufacturers. The pilot programme is looking to expand the numbers of quality insulins by way of an evaluation to ensure that they are of quality, safe and effective.

The programme is limited to insulins that have either been approved by a stringent regulatory authority or insulins registered to a non-stringent authority but which will be assessed by WHO's full assessment pathway.

WHO said the programme is necessary because current insulin prices and availability are a barrier to treatment in most low- and middle-income countries. As we have reported several times, in the US insulin prices have spiked in recent years, which has led to rationing and deaths. Congressional bills have been proposed to lower the price of insulin but none have passed. (Regulatory Focus, November 2019)

## World Health Organisation warn about lack of exercise in teenagers

A study led by the World Health Organisation (WHO) based on information from 1.6 million people

in 146 countries found that more than 80% of adolescents aged 11 to 17 years did not meet a WHO recommendation for at least an hour of physical exercise a day. They are jeopardising their health by not reducing their risk of obesity and cardiovascular diseases.

Globally, girls are more inactive than boys, with 85% of girls and 78% of the boys surveyed not meeting the daily exercise target. A WHO expert on non-communicable diseases said sedentary behaviour may be due in part to a recent rapid expansion in digital technology that means young people spend more time on phones, tablets and other screens.

Country by country, the percentage of teenagers not meeting the target ranged from 66% in Bangladesh to 94% in South Korea. In the US, despite a national plan promoting physical exercise since 2010, obesity rates have risen among adolescents, especially those who eat food high in salt and sugar. The study suggested that many sports in the US seem to be designed to attract boys more than girls with the inactivity rate in American girls being 81% compared to 64% in boys.

The WHO recommends that more needs to be done to promote better rates of activity in teenagers and to improve heart, lung, muscle fitness and bone health. (The Lancet Child & Adolescent Health Journal, December 2019)

# Ramadan 2020 **AND FASTING**

**This year Ramadan will start on 23rd April and continue until 23rd May. During this month it is expected that Muslims who participate will abstain from food, water, beverages, smoking, oral drugs and sexual intercourse from sunrise to sunset.**

Fasting has special consequences for people with diabetes, especially those taking insulin. People with diabetes may be exempted from fasting but the majority do fast so run increased risks of adverse health effects, such as hypoglycaemia, hyperglycaemia, diabetic ketoacidosis and dehydration, most of which are as a result of a

reduction of food and fluid intake and the timing of meals.

People have to rely on expert advice from doctors and their personal experiences as there are no evidence-based guidelines for fasting.

## Recommendations

What studies have been done suggest that people with Type 1 and Type 2 diabetes should more actively carry out blood glucose monitoring, consider any changes in insulin/drug dosage and timing and have dietary counselling/education. One study has shown that people with Type 2 who did not have education

about fasting were 4 times more likely to have hypos, therefore, it is recommended that those who do not normally carry out self-monitoring of blood glucose should be provided with meters. (Diab. Med. February 2016)

The findings of this and other studies suggest that people with both types of diabetes should have an assessment with their diabetes team 1 to 2 months before Ramadan. This should include drug/insulin adjustments, exercise and awareness of the risks of hypo- and hyperglycaemia. If they are ill during the fasting, then they should seek advice from their diabetes team.

# Tens of thousands given life-changing diabetes monitors thanks to the NHS Long Term Plan

**This is the title of a press release issued on 22nd October 2019 by NHS England and its key statement is: “Nearly 30,000 people across the country with Type 1 diabetes have received life-changing diabetes monitors through the NHS Long Term Plan.”**

It goes on to say that this means people with Type 1 do not have to carry out multiple painful finger prick checks to monitor their blood sugar levels. Instead, people with the condition can monitor their blood sugar levels in a much more convenient way, the FreeStyle Libre.

Ahead of schedule in delivering the NHS Long Term Plan, over half of the people eligible are already in possession of the device within the first three months - 28,453 patients have the Libre and 177,000 sensors being prescribed.

## The good news

At the time of the press release, it was stated that the NHS is writing to local leaders to ensure this rapid uptake continues, with medical directors being urged to further build on the successful rollout to ensure people across the country reap the benefits of the life changing technology. However, to qualify for the FreeStyle Libre, the criteria for it being prescribed have not changed, yet Prevention



Minister, Jo Churchill stated: “We are putting the power back in the hands of people with Type 1 diabetes, so they can more easily manage their condition. I look forward to these numbers growing, as more people are empowered to use this innovative technology to improve their quality of life.”

## The not so good news...

At the time of writing, there is a shortage of Libre sensors with people having to wait 3 to 4 weeks to obtain them. This makes a bit of a nonsense of the promises!

### Effectiveness of flash glucose monitoring on HbA1cs in Type 2 diabetes

Three European real-world review studies in people with Type 2 diabetes using basal bolus insulin

treatment all concluded that HbA1c was significantly reduced after changing to using flash glucose monitoring (FreeStyle Libre) for 3–6 months.

Records were analysed from 18 medical centres in Austria, France and Germany and HbA1c results were recorded up to 90 days before the start of using the device. The results were comparable across the three countries and HbA1cs were significantly reduced with no significant differences between age group, sex, BMI or duration of insulin use. This research adds to the case for people with Type 2 diabetes using insulin to also have access to the Libre on the NHS. (Diabetes Therapy, December 2019)

## **The FreeStyle Libre reduces absenteeism and hospital admissions**

Another study carried out in the Netherlands looked at 1,365 people with either Type 1 or Type 2 who have been using the FreeStyle Libre for 12 months. It has shown the following:

- a significant decrease in HbA1cs, with the greatest improvement being in people with the worst control,
- fewer and less severe hypoglycaemic events,
- a lower absenteeism rate and less diabetes-related hospital admissions,
- people played a more active role in their treatment and treatment changes.

(BMJ Open Diabetes Research & Care, January 2020)

## **FreeStyle could help older people with diabetes and memory loss**

Researchers have said that the FreeStyle Libre could be the answer to helping older people with diabetes and memory loss to manage their condition better.

It is estimated that 20% of older people with dementia also have diabetes and as their memory function worsens, their diabetes could also be affected. Researchers from the University of Anglia looked at the best way to help older people who have difficulty remembering to check their blood sugars.

Older methods of checking blood sugars rely on people remembering to do finger-prick tests but when fitted the FreeStyle Libre, carers spoke favourably about its ease of use and they all were positive about recommending it to others. (BMJ Open)

# BREXIT

## **Medicines**

Now that the BREXIT situation is clearer, well a little, the three main insulin manufacturers – Lilly, Novo Nordisk and Sanofi have confirmed that the previous arrangements are still in place. They are keeping at least 16 weeks of additional stock. People should continue to get prescriptions and use their medicines in the normal way. Pork insulin is made in the UK, so supplies are unaffected.

## **Devices**

The government have said that the key medical technology companies have confirmed that they are in regular discussions with all the major companies who provide continuous glucose monitors (CGM), FreeStyle Libre, insulin pumps and blood glucose monitors and strips. The majority of tech companies have confirmed to the DHSC that they have alternative transport routes in place if disruption occurs and have built up buffer stocks.

During the 12month implementation period, the UK will continue to stay aligned to EU law, and existing regulatory and customs procedures will remain in place. The government expect that supplies, including medicines and medical goods, will continue as usual.

## **Travel**

If you are a UK national travelling to the EEA or Switzerland, you can continue to access healthcare as you do now until at least the end of the implementation period, December 2020. If you have an EHIC, this will also be valid until the end of the implementation period.



# Facts about SEPSIS

**Sepsis is frequently discussed and attention drawn to it by hospitals having sepsis awareness weeks so that staff are aware of the signs and symptoms.**

Sepsis is a life-threatening reaction to an infection. It happens when the immune system overreacts to an infection and starts to damage the body's own tissues and organs. It is sometimes called septicaemia or blood poisoning. You cannot catch sepsis from another person.

In March 2019, the Secretary of State for Health and Social Care, Matt Hancock tweeted that sepsis kills over 52,000 people every year and that each death is 'a preventable tragedy'. This is quite a frightening prospect for patients and their families and hospitals are criticised and penalised for not giving patients antibiotics within an hour of diagnosis. Doctors are reported for not giving antibiotics to patients they think do not have sepsis. However, we need to look at the realities.

## **Let us look at the facts**

A letter in The Lancet (October 26, 2019) criticised the tweet by Matt Hancock for raising unnecessary fears and points out that sepsis only develops in a tiny minority of patients. A small proportion of patients are admitted to intensive care units and around 70% survive their hospital stay. Patients who die of infection outside hospital (and many who die inside hospital) are predominantly older, frail and at the end of life. In fact, 77.5% of sepsis-related deaths in England are in patients aged 75 years or older. The letter also points out that the high incidence of frailty and other conditions makes most sepsis-related deaths neither attributable to sepsis nor preventable through timely and effective health care.

The authors of the letter state that it is crucial to expose the fictions surrounding sepsis, to create a better understanding of the condition and to create realistic expectations.

Anyone with an infection can get sepsis but some people are more likely to get an infection that can lead to sepsis:

- **babies under 1**, particularly if they're born early (premature) or their mother had an infection while pregnant,
- **people over 75**,
- **people with diabetes**,
- **people with a weakened immune system**, such as those having chemotherapy treatment or who recently had an organ transplant,
- **people who have recently had surgery or a serious illness**,
- **women who have just given birth**, had a miscarriage or an abortion.



# Norway's sugar consumption down to 44-year low



**An official report from Norway's health directorate has shown that the consumption of sugar in Norway is at its lowest level in the last 44 years due to taxes and advertising regulation. The consumption of sugar has dropped from 43kg per person per year in 2000 to 24kg in 2018 and over the last ten years, there was a 27% decline in sugar consumption.**

The report showed that people in Norway are eating less chocolate and confectionery and there has also been a decline in the sales of sugary drinks. Consumption peaked at 93 litres per person per year in the late 1990s, more than double that in the 1950s but the latest figures show that consumption is back to 47 litres per person per year.

## Taxes

A generalised sugar tax was brought in by the Norwegian government in 1922 but to generate revenue rather than as a public health measure. Taxes for confectionery and sugary drinks have been increased substantially. In January 2018, the tax on confectionery and chocolate increased by 83% and the tax on sugary and artificially-sweetened drinks increased by 42%. In a move to reduce sugar consumption even further, Norway is now looking at developing a levy targeting unhealthy foods based on more than just sugar content.

## Advertising

Then there is Norway's approach to advertising. In 2013, manufacturers and suppliers of food agreed to a voluntary ban on marketing unhealthy foods and drinks to children younger than 13. In Norway, about one

in six children and young people are obese whereas in the UK it is one in three. (November 2019)

## And in the UK?

Clearly, Norway has set an example that many countries could/should follow, including the UK, where overweight and obesity and the health consequences are a real problem. Before Christmas, 'Action on Sugar' carried out a survey on sugar content of various drinks. The amount of sugar in some of the drinks was staggering but also these figures show that there is a very long way to go. Many high street coffee chains are failing to make progress towards the Government's voluntary sugar reduction targets which are overseen by Public Health England.

There is still a debate about whether milk and milk alternative drinks should be taxed and when looking at some of the pre-Christmas milk and milk alternative drinks of the major chains, it seems that there should be no debate! According to the survey:

- the worst hot chocolate 'offender' is Starbucks Signature Caramel Hot Chocolate with whipped cream, using Oat Milk with an amazing 23 teaspoons (93.7g) of sugar in one drink and

containing 758 calories!

- Caffe Nero's large Salted Caramel Hot Chocolate made with skimmed milk contains nearly 15 teaspoons of sugar (59.6g) and 503 calories. An average person would have to do 90 minutes on the cross trainer to work this energy off!
- To be fair, some responsible coffee shops have shown reformulation of milky drinks is possible - Costa have made some significant reductions in sugar since 2016 and some others now offer smaller sizes as standard.

Clearly many high street coffee chains are still failing to reduce sugar in their milk-based and milk-alternative hot drinks. This shows that voluntary action is not working so there is a need for a mandatory approach on the part of the UK Government or at the very least, the need to include milk-based drinks with added sugar and liquid drink flavourings in the sugar tax regulations. We need to learn lessons from Sweden!

**Just a word of warning:** consumers looking for an alternative to cow's milk are unknowingly consuming excessive sugar due to lack of labelling and the 'health halo' of vegan options.

## REPORT ON THE...

# BEST DIET IN 2020



These days there are a multitude of different diets which, with or without diabetes, add to our confusion, but which diet is the best? For 10 years there has been a report on which diets are the best from the US News and World. A panel of 25 judges takes into account how diets perform in terms of being safe, sensible and backed by sound science. In addition, the ‘best’ diets had to include balance, maintainability, palatability, family-friendliness, sustainability, along with healthfulness.

## Mediterranean Diet comes top

For the third year in a row the Mediterranean diet came top. This diet emphasises simple, plant-based cooking and was also in first place for best diet for healthy eating, easiest diet to follow, best plant-based diet and best diet for diabetes. It focuses on eating less red meat, sugar and saturated fat and more Omega-3-rich fish and olive oil. Red wine can be taken in moderation and socialising with friends and family during meals is part of the prescription.

The Mediterranean diet has been linked to stronger bones, a healthier heart, a lower risk of dementia and breast cancer, and longer life, along with a reduced risk for diabetes and high blood pressure.

## And following closely...

Following closely behind the Mediterranean diet were the DASH, flexitarian, Weight Watchers (now known as WW) and MIND diets, as has been the case in previous years’ reports.

**The DASH diet** is often recommended to lower blood

pressure and it is relatively simple - eat more vegetables, fruits and low-fat dairy foods while cutting way back foods high in saturated fat and limiting salt intake.

**The flexitarian diet** tied for second place with the DASH diet. Its emphasis is on whole grains, fruits, vegetables and plant-based proteins, so basically a vegetarian diet with the occasional piece of meat or fish, thus making it “flexible.”

**The MIND diet** is a combination of the Mediterranean and DASH diets which some people find a bit easier to follow, as it requires less fish and fruit. Both this and the flexitarian diet have been shown to lower the risk of Alzheimer’s disease.

**Weight Watchers (WW)** came in fourth on the best diet list but was first in the report’s ranking of best weight loss, commercial weight loss programme and top for stressing the importance of support for dieters. The popularity of WW has reduced due to the growing popularity of the keto diet. So, to the keto diet....

**The keto diet** came next to last of the 35 diets in the report. The aim of this diet is “ketosis”, a

metabolic state that burns the body’s stores of fat for energy instead of carbohydrates. (In people with diabetes, this state is similar to when blood glucose levels are very high which can lead to diabetic ketoacidosis.)

This diet restricts carbs to 20grams a day, an intake level that dietitians consider to be unhealthy and unsustainable. The carbs are replaced with high levels of protein, fats and dairy, typically full of saturated fat that can contribute to cardiovascular and other chronic diseases. This is a concern for people with diabetes because they are already at higher risk of cardiovascular disease. The adverse effects are headaches, nausea, dizziness and fatigue, particularly at the beginning.

Long-term studies on the effectiveness of the keto diet are lacking. This diet and the low/ no carbohydrate diets tied for third place in the race for fast weight loss.

**The paleo diet** came 29th of 35 on the list. It is designed to resemble what human hunter-gatherers ate thousands of years ago, although there are varying views on what this was.

It consists of eating meat, fish, eggs, vegetables, fruits, nuts, seeds, herbs, spices, healthy fats and oils and avoiding processed foods such as, sugar, soft drinks, grains, most dairy products, legumes, artificial sweeteners, vegetable oils, margarine and trans fats.

However, this means there is an absence of whole grains and legumes (good sources of fibre), vitamins and other nutrients and the absence of dairy products means that there is less protein and calcium consumed.

The paleo diet may help with loss of weight but there are no long-term clinical studies about the benefits and risks of this diet. The Mayo Clinic comment that

the same health benefits may be achieved by getting enough exercise and eating a balanced, healthy diet with a lot of fruits and vegetables.

### **Why are diets good at helping quick weight loss ranked so badly overall?**

Studies show that this is because quick weight loss diets usually emphasise some drastic cuts in nutrients or the elimination of an entire food group, which can't be maintained over time. When the diet stops, the weight comes back, often at higher levels than at the start of the diet. It's the body's response to "yo-yo" dieting.

The president of the True Health Initiative, an organisation dedicated to health promotion and disease prevention, commented: *"Many things that are truly bad for health can cause short-term weight loss. The most effective diets for 'fast' weight loss impose severe restrictions that cannot be maintained and would not be compatible with health if they were."*

*"Spending your life weight-obsessed and going on and off diets, is no way to live. Everyone thinks there is some magic formula for weight loss that they haven't tried yet but the consensus of this report is a resounding rebuke of that silly idea."*

# MATT HANCOCK WATCH



## **New digital aspirant programme**

In a speech at the Policy Exchange, Health and Social Care Secretary, Matt Hancock, set out his priorities for a new digital programme, an extension to the Global Digital Exemplar programme. (December 2019)

The latter was launched by NHS England in 2016 to support the work of "digitally advanced" mental health, ambulance and acute care trusts. Organisations selected to take part in the scheme are partnered with overseas counterparts that have a demonstrable track record of using technology to improve outcomes.

Matt Hancock stated: *"I want the whole of the NHS to be part of the programme that will take us into the 2020s, not just the leading trusts. Until now, the focus has been on getting some hospitals up to scratch through the global digital exemplar programme. They've got to keep advancing, but now we're going to help many more hospitals with a new digital aspirant programme. And this model of excellence*

*crucially will become part of the CQC's inspection regime too so people know they will be assessed against good use of high-quality technology and incentivised to deliver."*

He outlined four priorities, Prevention, People, Technology and Infrastructure.

## **Suggestion that targets could be scrapped**

The latest figures from NHS England showed that A&E waiting times hit their worst-ever level in December 2019, with one in five people attending A&E forced to wait for more than four hours.

In January 2020, Boris Johnson admitted in Prime Minister's Questions that NHS waiting times are "unacceptable". This came after Matt Hancock, told the BBC the repeatedly-missed accident and emergency target was no longer "clinically appropriate" and he suggested it was "no longer supported" by doctors themselves. He hinted that ministers could drop some of the repeatedly missed targets. One way of solving the problem!

# Diabetes and mental health support

People with diabetes experience disproportionately high rates of mental health problems such as depression, anxiety and eating disorders. All people with diabetes should have access to psychological treatment and support to reduce psychological distress and improve self-management.

Depression and generalised anxiety are unusually common and lasting among people with diabetes. Generalised anxiety disorder occurs within 3% of the population but in up to 15% of the population with diabetes. An average 16% of the general population recovers from depression but only 10% of those with diabetes report a recovery.

**“Generalised anxiety disorder occurs within 3% of the population but in up to 15% of the population with diabetes.”**

A German study interviewed young adults with early-onset Type 1 diabetes and found that a 1 mmol/mol increase in HbA1c level was associated with 0.28 points higher score on the diabetes distress questionnaire. Each unit increase in score on the depression questionnaire at the beginning was linked to a 0.49mmol/mol increase in HbA1c levels. In other words, in some people increases in HbA1cs increased the risks of depression. The findings also showed that women were more likely to have higher distress scores than men. (Diabetic Medicine, April 2019)

## And in the UK...

There have been several Parliamentary Questions asking the Secretary of State for Health and Social Care, if he will ensure that the NHS establish a pathway of care for (a) emotional and (b) mental health support for people with diabetes.

A Diabetes UK survey of 2,000 adults with Type 1 and Type 2 diabetes found that 75% of them feel overwhelmed by the demands of living with diabetes and this affects how well they manage their diabetes and their mental health.

The survey also showed that three quarters of people who felt they needed specialist mental health support to help them, could not access it and the majority felt they are not helped to talk about their emotional wellbeing by their diabetes teams.

Healthcare professionals were also surveyed with the following results:

- 40% of GPs said that they are unlikely to ask about emotional wellbeing and mental health at routine appointments.
- Only 30% of GPs feel there is enough emotional and psychological support for people living with diabetes.

## Moving to adult services increases mental health risks for adolescents with diabetes

Research has shown that as adolescents with Type 1 diabetes move into adulthood, there is a likelihood that they will experience increased mental health risks, such as mood disorders and other psychiatric disorders.

Canadian researchers assessed the development of mood and psychiatric disorders, suicide attempts, deaths and psychiatrist visits from age 15 to 25 years in 3,544 adolescents with diabetes (47.3% girls) and 1,388,397 adolescents without diabetes (49.1% girls). There was a 33% increased risk for mood disorders among adolescents with diabetes compared to 29% increased risk for those without diabetes and a 1.82 greater risk that those with diabetes would need to see a psychiatrist.

The researchers recommend that healthcare professionals should enquire about mental health disorders in adolescents with diabetes and that there should be increased mental health resources to support them. (Diabetes Care, December 2019)

## But this is not really news!

It is not news that diabetes is present 24 hours a day and 365 days a year which means taking responsibility for constant decision-making. It is also not news that diabetes can have an impact on people's emotional and psychological wellbeing and can cause anxiety and depression. In addition, some people develop the complications of diabetes and have to live with these additional pressures and need support.

The fact that this is not news does not mean that it is any less important for the NHS to develop emotional and psychological support for people with diabetes but what is a shame, is that it has taken so long for this to be recognised!

**Statement from the Minister of Health, Seema Kennedy** (June 5th 2019)

“The NHS Long Term Plan is committed to increasing the provision of mental health for all patients who require it. The importance of addressing the mental health needs of people with diabetes is recognised and further work is underway to consider the most effective routes for supporting this as part of the future development of services. In addition, a project working group has been established involving NHS England, Diabetes UK and other stakeholders which aims to develop a care pathway which, when adopted locally, would help improve access to mental health support for people with diabetes.”

We'll wait to see what happens...

Note: If you would like IDDT's leaflet, Diabetes – Stress, Anxiety and Depression, contact IDDT by telephone 01604 622837, email [enquiries@iddtinternational.org](mailto:enquiries@iddtinternational.org) or by post to IDDT, PO Box 294, Northampton NN1 4XS.



## 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 October 2019 draw are:**

**1st prize of £571.68** goes to Mrs D. from Petersfield

**2nd prize of £428.76** goes to James from Rainham

**3rd prize of £285.84** goes to David from Kettering

**4th prize of £142.92** goes to Anon. J. from York

### **Winners of the November 2019 draw are:**

**1st prize of £569.76** goes to Neil from Thetford

**2nd prize of £427.32** goes to Denis from Highcliffe

**3rd prize of £284.88** goes to William from Solihull

**4th prize of £142.44** goes to Mary from Norwich

### **Winners of the December 2019 draw are:**

**1st prize of £563.52** goes to Jeanette from Merseyside

**2nd prize of £422.64** goes to David from Bradford on Avon

**3rd prize of £281.76** goes to Anon. from Northampton

**4th prize of £140.88** goes to Susan from Milton Keynes

### **Winners of the January 2020 draw are:**

**1st prize of £579.84** goes to June from Selby

**2nd prize of £434.88** goes to Marie from Burntwood

**3rd prize of £299.92** goes to Ian from York

**4th prize of £144.96** goes to Raymond from Darlington

**Note: The winners of the draws for February, March and April 2020 will be announced in our June 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](mailto:jo@iddtinternational.org)

## Statins don't affect memory

Australian researchers have found that in the elderly, taking statins does not affect memory and thinking later in life. In addition, the research showed that there was no difference on brain size between statin users and non-statin users. However, this research found a slower decline in certain memory and thinking skills in a small group of people who began taking statins, so this research does not provide enough evidence to recommend statin treatment to prevent Alzheimer's.

The researchers say that evidence suggests that tackling high cholesterol, especially in midlife, can help to support a healthy brain and a healthy heart and people who are concerned about their cholesterol levels should speak to their doctors. (Journal of the American College of Cardiology, November 2019)

## Statin use raises risks for new-onset diabetes and skin infections

Researchers from Curtin University stated that the widespread use of statins is likely to continue with guidelines across the world recommending statin use for prevention of cardiovascular diseases. Therefore, there is a need for clinicians to be aware that statin use may be associated with Type 2 diabetes and statin users who are predisposed to diabetes would benefit from blood glucose monitoring.

In addition, there is a possible increased risk for skin infections. The use of statins for as little as 91 days is associated with an increased risk for skin infections via diabetogenic and non-diabetogenic mechanism.

The researchers analysed prescription claims (2001-2011) from the Australian Department of Veterans Affairs to find out the relationships between statin use and skin and soft tissue infections and diabetes and independent of diabetes status.

- Overall, statins were associated with increased risk for skin and soft tissue infections, with similar risks observed at 91 days, 182 days or 365 days of statin use. The strongest association between skin and soft tissue infections was with atorvastatin and simvastatin.

- Statins were also associated with greater risk for new-onset diabetes, with a slight decrease in risk gradually at 91 days, 182 days and 365 days.
- People with diabetes were associated with increased risk for skin and soft tissue infections at 182 and 365 days but the risk was non-significant at 91 days.

Further studies are required to confirm these findings but it would be prudent to monitor blood glucose levels of statin users who are predisposed to diabetes. (British Journal of Pharmacology, October 29th 2019).

## Premature babies at higher risk of Type 1 and Type 2 diabetes

According to research, premature babies are at a higher risk of developing Type 1 or Type 2 diabetes as children or younger adults. The researchers recommend that babies who are born before 37 weeks should be intensively monitored to prevent or lower their risk of developing either condition.

Previously, no large population-based studies have examined risks of Type 1 or Type 2 diabetes in people who were premature and neither have the differences between boys and girls from childhood into adulthood been investigated.

This research studied all 4,193,069 single babies born in Sweden during 1973 – 2014 who were then followed up to the end of 2015 to see how many had developed Type 1 or Type 2 diabetes. They also did an analysis to assess the siblings of those in the study to look at whether the risk of diabetes was associated specifically with preterm birth or with genetic or environmental factors shared by all siblings.

### The results showed:

- Throughout the study, 27,512 (0.7%) and 5,525 (0.1%) people were identified with Type 1 diabetes and Type 2 diabetes respectively.
- Being born preterm (earlier than 37 weeks) was associated with a 21% increased risk of Type 1 diabetes and a 26% increased risk of Type 2 diabetes in those aged less than 18 years.
- In young adults aged 18-43 years, being born preterm was associated with a 24% increased risk of Type 1 diabetes and a 49%

increased risk of Type 2 diabetes.

- Being born male and preterm was associated with an approximately 20% increased risk of Type 1 diabetes in both the under 18 years and the 18-43 years groups, but for females the increased risk was around 30% for both age groups.
- For Type 2 diabetes, being born female and preterm was associated with a 60% increased risk in those aged under 18 years but for males aged under 18 years there was no increased risk.

The researchers suggest that many mechanisms could account for these observations, including preterm birth interrupting and limiting the production of beta cells in the pancreas which produce insulin; effects on the immune system; the impact of medications and procedures in intensive care during the birth period and then differences in other risk factors such as diet, exercise and obesity. (Diabetologia, December 2019)

## Drinking whole milk may reduce risk for obesity in children

Canadian researchers analysed information from 28 studies and found that children who drink whole milk (full fat) instead of skimmed milk have a lower risk of being overweight or obese. The results showed that children who drink whole milk were 40% less likely to have an unhealthy weight than children who drank reduced fat or skimmed milk.

The studies included 21,000 children and teenagers. None of the studies found that children who drank reduced-fat milk had a lower risk of being overweight or obese and 18 of the 28 studies suggested children who drank whole milk were less likely to be overweight or obese. These findings challenge international guidelines that recommend children consume reduced-fat cow milk instead of whole milk starting at age two to reduce their risk for obesity.

This was an observational study, so the researchers plan to explore this further with a randomised controlled trial which would help to establish cause and effect. (American Journal of Clinical Nutrition, December 2019)



## Diabetes nurses' titles

We have reported that when the last survey was carried out in 2010 amongst nurses specialising in diabetes, there were an amazing 238 different job titles. However, a recent audit of Diabetes Specialist Nurses (DSNs) in England has been carried out by TREND-UK, an organisation that represents all diabetes nursing groups. This has shown that there are 1,872 nurses in diabetes care and 117 different job titles.

TREND have called for just two nursing titles as a result of the audit to avoid the confusion that presently exists amongst patients and NHS employers. The proposal for the two titles is:

- Diabetes Specialist Nurse at Band 6 when all new DSNs should meet basic competencies measured as part of an appraisal and they should be prepared to undertake diploma-level modules.
- Senior Diabetes Specialist Nurse at Band 7 should have a Non-Medical Prescribing qualification and be willing to undertake a Master's degree.

TREND say that this is to ensure that people with diabetes are receiving excellent diabetes care and support from a highly trained and knowledgeable nurse.

Latest figures suggest there are more than 3,222,500 people with diabetes in England, which show that there are 0.58 nurses for every 1,000 people with diabetes. Preliminary analysis also shows wide variations in provision of DSNs in major cities and local areas. These are facts that need further investigation and action.

Finally, the nurses' pay bands were analysed and showed:

- There were 41.47% Band 6 nurses.
- There were 48.57% Band 7 nurses.
- 48.6% of the nurses worked in hospitals, 36% in the community and 15.4% worked in both settings.

# IDDT Thanks You

## Christmas cards

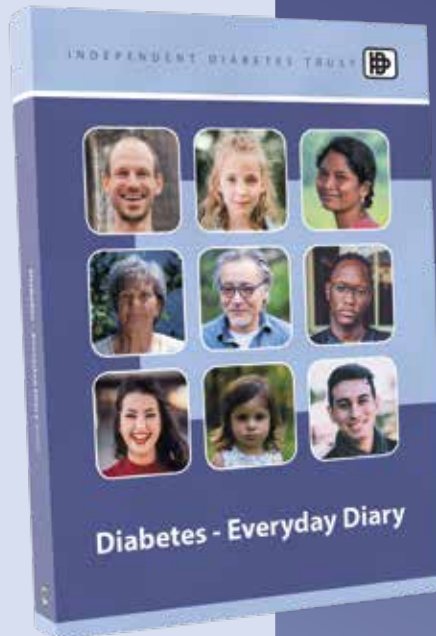
We would like to say a huge thank you to all of the people who supported IDDT by buying our products before and during the Festive Season, especially the Christmas cards and books.



An especially big thank you to the 11th Northampton Boys Brigade who all helped to sell our Christmas cards and raised £100 for IDDT.

## Diabetes Diary 2020

For the first time, we published the Diabetes Diary 2020 and we were delighted with the number of people who not only thought this was a good idea, but also bought a Diary and sometimes one for a friend. We still have a few 2020 Diaries left for anyone who wants one. They are only £4.99, so just give us a call on 01604 622837 or go to our website [www.iddtinternational.org](http://www.iddtinternational.org)



## Dream Trust

As regular readers will know, some of our members sponsor children and young people at Dream Trust in India to help with their medical costs and education. We would like to say thank you to all of you who continue to sponsor a child at Dream Trust – last year you raised over £5,865!

Dr Pendsey who runs Dream Trust has sent an interesting story about one of the young people at Dream Trust who is training as an ICU assistant at the Government Medical College in Yawatmal. In addition, his area of interest is catching wild snakes. He hands them over to the Forest Department who then release them into the forest. He usually gets 6 to 8 calls a day to catch snakes in residential areas, here he is with a python!



## Helping Developing Countries

IDDT acts as the UK arm of an organisation called Insulin for Life, collecting unwanted insulin and diabetes supplies and sending them to help people in developing countries. In 2019 we sent out over 4400 pens, vials and cartridges of insulin worth over £38,000, along with over 174,000 items of various diabetes supplies – so a big thank you to all of you who donated items.





## CCG mergers

The NHS Long Term Plan was published over a year ago setting out plans for NHS England over the next 10 years. Clinical Commissioning Groups (CCGs), the organisations that plan and purchase healthcare at local level, are to merge. It is expected that by April 2021 CCGs will have merged to form larger organisations called Integrated Care Systems (ICSs).

It is still unclear how many ICSs will cover England but many CCGs are already merging and the number has reduced from 211 in 2012 to 191 in April 2019 with around 20 others expected to merge by April 2020. This means that the new ICSs will cover populations of over 1 million so there should be less variation in health and care across the country. It also means that working on this larger scale management costs will reduce.

It seems that we are going back to a time before the introduction of CCGs in 2012 and yet no one has actually said that the NHS changes of 2012 didn't work!

## Amazon contract with the Department of Health and Social Care

Last July a deal was announced for Amazon to use the content on NHS websites for customers of Amazon through its virtual assistant Alexa. Questions such as 'how do I treat a migraine?' could be asked and Alexa would use content from NHS websites. However, Privacy International, a UK based charity, asked a series of FOI questions about the contract with Amazon and also called for transparency.

It appears that more than just content on the NHS website is part of the contract and Amazon is not making the NHS any promise beyond guaranteeing it will give an attribution to the NHS when the NHS content is being quoted. So, when Alexa users ask health questions, there is no guarantee that NHS content will always be used, yet this is a known source that most of us consider reliable!

### Only 7,000 registered dietitians in the NHS

The British Dietetic Association (BDA) is calling for the NHS to provide more support for people wanting to eat healthily. Their survey (April 2019) showed that nearly 40% of respondents said they wanted access to a registered dietitian. It also showed that many people get their information about healthy eating from the TV and social media rather than from trustworthy sources.

There are less than 7,000 registered dietitians employed in the NHS so people have to wait weeks to see a dietitian when referred by their GP or consultant.

The BDA said: "Bad diet is the single biggest lifestyle factor in determining ill health - even more than smoking - so it is ridiculous that we have so few health professionals who specialise in diet and nutrition. (May 2019)

IDDT comment: some of us remember the days when a diagnosis of diabetes automatically meant a referral to a dietitian!

### Insulin prescribing in NHS hospitals and ways to reduce errors

A questionnaire was sent to chief pharmacists in all UK NHS hospital trusts in January 2019. Questions were about the use of electronic and paper systems used to prescribe insulin, along with features designed to reduce insulin prescribing errors.

- 95 hospital trusts responded (54%).
- Electronic prescribing of insulin was reported in 40% of hospitals.
- The availability of specialist diabetes pharmacists to support safe insulin prescribing was low (29%) but where this was the case, there was a greater reduction in prescribing errors.
- The use of specific interventions to improve insulin prescribing quality (e.g. self-administration policies) varied greatly between hospitals.

The conclusions from the survey were that the wide variation in the use of insulin error reduction strategies may be improved by the availability of specialist diabetes pharmacists. (Diabetic Medicine, December 2019)

## Reappointment of doctors leading diabetes care at NHS England

Professor Jonathan Valabhji OBE has had his contract renewed as the National Clinical Director for Obesity and Diabetes and Professor Partha Kar's contract has been extended with the new title of National Specialty Advisor with a specific focus on Type 1 diabetes and technology.

# From our own CORRESPONDENTS



## Keep up the good work!

*Dear Jenny and the fantastic team at IDDT,*

It's been many years since I have written, but IDDT was invaluable to me when I was diagnosed with Type 1 diabetes in 2006 at the age of 20.

I read with interest about the Libre Free Style system in the IDDT Newsletter. I first became aware of this when I was loaned one as part of a research trial 3 years ago. I have now managed to obtain one under the NHS - a significant battle but we got there in the end!

I can say it has really transformed the way I manage my diabetes:

1. It's fascinating to see what my sugar levels do at night and the changes I can make to my routine to improve control while asleep.
2. Checking can be far more frequent and can be done while on the move and more discreetly at work.
3. The phone app provides huge amounts of data, including an estimate of my HbA1c. After my diabetic review today, it turns out this is exactly the same as the blood result I received!

I have also stopped using strips, so while the Libre sensors are expensive, there is an immediate cost saving to the NHS, not to mention the reduced long term costs through improved control.

Please do keep up the work to improve information about diabetes and to continue to fight for improving the health and well-being of people with diabetes. I hope my experiences above might help others explore if a Libre is right for them.

H.J. *Email*



## Hypos in hospital – A&E is best

*Dear Jenny,*

I was interested in the article on page 9 of Issue 203 about hypos in hospital. Having had Type 1 diabetes for many years with no hypo warnings, I have had quite a lot of experience of hospitals and I have to confess that I am more relaxed in A&E than in a Ward where, in my experience, there is often a delay in assistance if one is hypo. I recently was admitted to A&E about 4.00am with a severe hypo where the paramedics, doctors and nurses were excellent but on the ward at 6.00pm a doctor came and asked if I was eating and drinking alright to which I had to say that I had not even been given water since my arrival at 4.00am!

I have concluded that A&E are far better than the wards for their knowledge of diabetes.

P.J. *Email*

## Check all communications from medical authorities

Dear Jenny,

I have macular degeneration and recently went for my regular eye check up during which my visual acuity (level of vision) was measured. However, rather than using the Snellen Chart with a mirror, as usual, a monitor the size and shape of a TV screen was used.

Eight days later I received a letter from the hospital telling me that my visual acuity without glasses was R Eye 6/15, L Eye 6/48 and this was not driving acuity standard. It said that I should check if I could read a number plate at 20m in a good light and with my driving glasses on followed by: "If you cannot read it, you should not drive."

The DVLA minimum eyesight standard for driving is 6/12 with glasses or contact lenses using both eyes together or, if you only have sight in one eye, using that eye. I tested my sight at 40m and concluded that I could see well enough to drive. My wife drove me to the hospital where I had another Snellen test and this time the result was: R Eye 6/9 and L eye 6/18. This is a very different result and one which permits me to drive. A note was added to my hospital records to that effect and a letter sent to my GP.

The moral for other people with diabetes is: check all communications from medical authorities and challenge the results if you think they are inaccurate or incorrect. My case could have resulted in the loss of my driving licence and serious inconvenience as those who have lost their licence will know only too well.

C.F. Midlands

## Always check your Diet Coke

Dear Jenny,

I am a 12 year old boy who was diagnosed with Type 1 diabetes at the age of 5. I live at home with both parents and my sister.

At times I found it very hard not being able to do the things other children can do, as easy as they can do it. My parents have always tried to get me involved in activities and outings as well as school trips but where other children just sit and eat, I have to stop to do my insulin.

Recently we went out for a family meal and I asked for a Diet Coke. I ate my meal and was half way through my drink when I started to feel strange, I was shaking and became very moody. My parents noticed straight away that my drink wasn't what I had asked for and spoke to the waiter who couldn't be sure that it was diet coke.

My mother said there must be a way of this never happening again and some way of knowing. So she tested the drink with a glucose test strip as you do with blood – she dipped a strip into a full sugar drink and the meter read HI, she did the same with water and it read LO. I had to share this with you as I think it could help others as people need to know how important it is to get the correct drinks.

P.C. West Midlands

## Artificial sweeteners clarification

Dear Jenny,

Your last newsletter included a comment that artificial sweeteners should not be used by Type 1 and Type 2 diabetics. Why not? I have been a Type 1 diabetic for 67 years and for many of those years I have used artificial sweeteners in coffee, porridge, stewed fruit and so on with no adverse effects. I recently found some stevia tablets that do contain carbohydrates when used to excess so obviously I don't use them but then I always read labels.

Would you please clarify exactly what you mean about not using artificial sweeteners to me and in the next newsletter so that other people can understand your comments.

By email

### Clarification

Firstly, the article was a report on research carried out in people with Type 2 diabetes or at risk of developing Type 2 diabetes, not people with Type 1 diabetes. The research showed that people who replaced their sugary drinks or artificially sweetened drinks with straight tea, coffee or water were less at risk of developing Type 2 diabetes.

It was a very large, reputable study published in a reputable journal and in the IDDT Newsletter, I merely asked the question whether people with Type 1 and Type 2 would be better reducing their artificially sweetened drinks too. I didn't advocate it, but research like this does make you wonder.



## SNIPPETS

### **Meals with media interaction lead to greater calorie intake**

A small study of 55 people with an average age of 26.1 years found that those who ate meals while using media, such as playing video games or watching a television, consumed 149.3 more calories than those who ate without media interaction. The researchers also found that 24.7% of media interaction occurred during main meals and included higher intake of protein, carbohydrates, fat and saturated fat. (Obesity, August 2019)

### **US adults with diabetes are no more likely to meet diabetes control targets than they were in 2005**

Typically, diabetes treatment focuses on controlling blood sugar, blood pressure and cholesterol levels, as well as not smoking. However, this published study analysed information on diabetes care from 2005 to 2016 and found that despite major advances in diabetes drug discovery and technology advances over the past 20 years, fewer than one in four American adults with diabetes achieve the target levels for blood sugar, blood pressure and cholesterol and do not smoke tobacco.

Certain groups of people were less likely to achieve diabetes care targets – younger age (18 to 44), female and non-white adults with diabetes. People with

health insurance coverage were most likely to be diagnosed with diabetes and achieve treatment targets. The researchers said that the barriers to accessing health care include lack of health insurance and high drug costs and that improvements can only be made if the advances effectively reach at risk populations. (JAMA, September 2019)

### **Smartphone use linked with higher obesity risk**

Colombian researchers have found that students who use their smartphones at least five hours a day are 43% more likely to be obese than those who spend less time using their phone. The researcher said, “Spending too much time in front of the smartphone facilitates sedentary behaviours and reduces the time of physical activity, which increases the risk of premature death, diabetes, heart disease, different types of cancer, osteoarticular discomfort and musculoskeletal problems.” (Presented at the ACC Latin America Conference 2019)

### **Glycaemic control and fracture risk**

Research carried out in Italy amongst 600 people with Type 1 diabetes with an average age of 42, showed that those who had HbA1c levels of 7.9% were 3.5 times more likely to have multiple fractures than those with HbA1cs of less than 7.2%. Those who had diabetes for 26 years were 7.5

times more likely to have multiple fractures compared to those who had diabetes for less than 14 years. (Bone, May 2019)

### **Gut microbiome, genetic risk for type 1 diabetes in children**

Researchers examined data from the All Babies in Southeast Sweden study and found that among 403 children, those who were at high genetic risk for type 1 diabetes had different gut microbiomes and different gut microbiota composition, compared with those at low genetic risk. The findings also showed that those who had low or no genetic risk had certain bacterial species that were not found in high-risk children. (Nature Communications, August 2019)

### **More joint pain in men with Type 2 diabetes and osteoarthritis**

A recently published study found that men with Type 2 diabetes and osteoarthritis who are receiving insulin treatment reported more joints having pain, higher joint pain and more analgesic use compared with men without diabetes. Looking at information from 489 patients with an average age of 65.8, the researchers said that their findings may be explained by how sensorimotor neuropathy has higher and earlier prevalence in men with diabetes compared with women. (BMJ Open Diabetes Research and Care, (November 2019)