



# Welcome

Welcome to the fifty-fifth issue of Type 2 and You and the summer issue for 2023. Many of us will be thinking about our summer holidays so we have re-launched our updated **Holiday Tips Booklet** (now with a Freebie for readers).

People are very often told to check the labelling on the food we eat for its nutritional content, so we have written a guide on how to read food labels. To accompany this, we also have a piece on the relationship between food groups calories, kilojoules and carbohydrates. However, before that we have a look at the importance of good oral health for people with diabetes.

We have put together a round-up of the latest research that has been published on metformin – **'Metformin Take 3'**.

You will also find details of our annual event **'Tips, Techniques and Trials'**, the latest round of Lottery results and the usual selection of Bits and Pieces. We hope you find this issue useful and interesting and wish you all the best for the coming summer.



## HOLIDAY TIPS

If you are going on holiday this summer, it may be the first time you have travelled since your diabetes was diagnosed. Whether you are staying in this country or going abroad, for people who live with diabetes, going on holiday means more planning and taking a bit more care when you are away. IDDT has a booklet on Holiday Tips which contains information and useful tips for holidays whether at home or abroad. It covers things like:

- Travelling by air and jetlag
- Dealing with heat
- Medication safety
- Diabetic Holiday Foot Syndrome

If you would like a copy of this handy FREE leaflet then please contact IDDT using the details at the end of this newsletter.

Alternatively, the Holiday Tips are also on our website:

[www.iddt.org](http://www.iddt.org)

### Sorry to mention it but.... Covid 19

While the UK may have lifted its foreign travel restrictions, it cannot be guaranteed that other countries have done the same. We would advise that you check for restrictions before you travel. The Government guidance on foreign travel and Covid 19 for England, Wales, Scotland and Northern Ireland respectively, can be found using the links below:

[www.gov.uk/guidance/travel-abroad-from-england-during-coronavirus-covid-19](http://www.gov.uk/guidance/travel-abroad-from-england-during-coronavirus-covid-19)

[www.gov.wales/international-travel-and-wales-coronavirus](http://www.gov.wales/international-travel-and-wales-coronavirus)

[www.gov.scot/publications/coronavirus-covid-19-international-travel-quarantine/](http://www.gov.scot/publications/coronavirus-covid-19-international-travel-quarantine/)

[www.nidirect.gov.uk/articles/coronavirus-covid-19-travel-advice](http://www.nidirect.gov.uk/articles/coronavirus-covid-19-travel-advice)

### A Little something from us...

If you are going away, you may find one of our **FREE** Tote Bags useful.



Measuring 35cm x 40cm, made from environmentally-friendly, unbleached cotton and displaying our logo, they are ideal for carrying beach towels, sun cream and other

holiday essentials.

For your FREE Tote Bag simply contact us using the details at the end of this newsletter.

# Why is Oral Health So Important?

Teeth are important, simple as that, and with good care they can last us a lifetime. As children we have 20 (primary) teeth by the age of three. Between the ages of about 6 and 7 years, the primary teeth start to shed and the permanent teeth begin to come through. By the age of about 21 years, the average person has 32 permanent teeth – 16 in the upper jaw and 16 in the lower jaw.

This diagram shows the structure of a normal, adult tooth, its division into three areas, the crown, neck and root, as well as the types of tissue that make up the tooth and its surrounding structure.



## General principles of good oral hygiene

There are several general principles that everyone should follow to try to optimize oral health, whether you have diabetes or not. You should already be familiar with them so we won't labour the points but here they are anyway:

- Brush your teeth at least twice a day, using fluoride toothpaste. For most people the best type of brush will be a small-headed toothbrush with medium texture bristles. When you brush, place your toothbrush at a 45-degree angle toward your gums. This helps sweep away plaque and bacteria at the gum line. Be sure to brush all teeth surfaces, including the backs and sides. You should spend at least two minutes brushing, every time you brush your teeth. Both manual and electric toothbrushes are effective in removing plaque.
- Floss daily. You can't reach the spaces between your teeth with brushing alone. You can use dental floss but you can also use interproximal brushes and dental picks to clean between your teeth if you find it easier. Water flossers are excellent for removing large pieces of food and debris but they can't remove the biofilm from your teeth surfaces. If you use a water flosser, be sure to use traditional dental floss as well.
- Brush your tongue. Your tongue holds bacteria like a sponge. Whenever you brush your teeth, don't forget to brush your tongue. You can use your toothbrush for this purpose.
- Use an antibacterial mouthwash every day. Antibacterial mouthwash helps keep harmful oral bacteria at bay. In addition to washing away food and debris, it also reduces plaque build-up. Be sure to choose an alcohol-free formula to prevent dry mouth.
- Visit your dentist regularly. Routine dental exams and cleanings are essential for good oral health. Many people do well with six-monthly visits but your dentist will advise you on how frequently you should attend appointments.
- Avoid smoking and other tobacco products. Smoking is a leading cause of gum disease and oral cancer. It's best to avoid these products altogether.

## Why is Oral Health important for people with diabetes?

Again, there are no real surprises when answering this question, especially if you think of diabetes as a condition, that when not managed properly, can lead to a range of complications. Oral health, or more specifically, oral health problems for people with diabetes are no different – they tend to happen more frequently.

The basic starting point is that Type 2 diabetes is very often characterised by high blood glucose levels. Glucose is found in the saliva. High glucose levels can increase the growth of harmful bacteria that, when combined with food, can form plaque. If not treated, plaque can harden into tartar and lead to gum disease.

In addition, Type 2 diabetes can compromise the effectiveness of the circulatory and immune systems, meaning that teeth and gums are at higher risk of problems or make problems more severe, than for those without diabetes.

### Oral Health conditions and diabetes

- **Gum Disease, Gingivitis and Periodontitis**

Gingivitis and Periodontitis are both types of gum disease. Gingivitis is when your gums become red and swollen. If gingivitis progresses, it can become periodontitis, a serious infection that breaks down the bone and tissue holding your teeth in place. Left untreated, periodontitis loosens teeth and can cause tooth loss. Gum disease is the leading cause of tooth loss in adults.

People with diabetes are more likely to develop gum disease. The relationship between diabetes and gum disease is two-way; poor blood glucose control increases the risk of gum disease and the prevention or treatment of gum disease can improve blood glucose control. The good news is that it can be prevented or even reversed by simply brushing your teeth, flossing, and having regular dental cleanings and checkups.

- **Tooth decay/Cavities**

Tooth decay is often caused by poor oral hygiene but there is research to suggest that diabetes may reduce the strength and durability of tooth enamel and dentine (the hard substance under enamel that gives structure to teeth). Early treatment can help stop it getting worse. Tooth decay may not cause any symptoms at first but if it gets worse it can lead to problems, such as a hole forming in the tooth (dental cavity). This in turn can lead to toothache and potentially a dental abscess.

Treatment for tooth decay depends on how severe it is. If caught early it can be reversed with fluoride mouthwashes or varnishes. In more serious cases teeth may require filling, root canal treatment or even extraction.

- **Dry Mouth**

Dry mouth, called xerostomia, is more likely to occur if you have diabetes. Dry mouth means a lack of sufficient saliva; saliva helps to prevent tooth decay and gum disease. Dry mouth can occur for several reasons. Metformin can cause dry mouth, as can medications called ACE inhibitors, which are prescribed for kidney, heart, and nerve health. Dry mouth can also happen if you are dehydrated, if you smoke, or if you tend to breathe through your mouth.

Following a keto diet, to help manage your diabetes, can also cause dry mouth. To avoid dry mouth, make sure to stay hydrated by sipping on water or other non-calorific beverages during day. Controlling your blood sugars, stopping smoking, and chewing sugar-free gum can help, too. If you suffer with dry mouth, talk with your doctor or dentist about using saliva substitutes or mouthwash.

## • **Burning Mouth Syndrome**

Yes, there is such a thing as Burning Mouth Syndrome (BMS). BMS is a painful condition that causes a burning, scalding, or tingling feeling in the mouth. Dry mouth or taste changes can occur at the same time.

The tongue is usually affected, but you may feel pain in your lips, roof of your mouth, or in your entire mouth. The pain can last for months or years; the pain may be reduced when you eat or drink. Certain medical conditions can cause BMS, including diabetes, thyroid issues, allergies, mouth infection, nutrition deficiencies, and acid reflux. Even toothpaste or a mouthwash that contains alcohol can cause BMS.

BMS can be treated in several different ways including saliva replacement products or specific oral rinses, various medication options and developing strategies to address anxiety and depression and cope with chronic pain.

## • **Oral Thrush**

Oral Thrush is a fungal (yeast) infection that occurs in the mouth that can be caused by poorly controlled diabetes and aggravated further by smoking. Symptoms include white patches on the inner cheeks, tongue, roof of the mouth and throat, redness and soreness in the mouth, loss of taste, pain with eating or swallowing and cracking and redness at the corners of the mouth. Wearing dentures increases the risk of this condition. Oral thrush is usually harmless and is not contagious. It can be easily treated with medicines bought from a pharmacy.

# Update from Ukraine

As we know from the TV News, the situation in Ukraine is still desperate. Although we are having a tough time, the people of Ukraine are in a far worse situation, so we are very grateful for the all the donations of unwanted, in-date insulin and diabetes equipment that have been sent to IDDT by members and many other people including health professionals. Our knitters have continued to send hats, gloves and toys for the children and one of our founder members gave £5,000 worth of sleeping bags for the cold weather, purchased from a neighbouring country.

In mid-March we sent a consignment of 103 boxes, some of which you can see above stacked in our hallway ready to go! The contents included:

- 1,026 pre-filled insulin pens, 417 insulin cartridges and 129 vials of insulin,
- 19,075 blood glucose test strips and 650 ketone test strips,



- 4,475 metformin tablets,
- numerous lancets, pen needles and other items.

The financial donations we have received are helping to pay for the fuel for the vans that are delivering the boxes to Ukraine. This last consignment went in a van with 50 wheelchairs donated by another charity.

Thank you must go to the IDDT staff team who have worked so hard to achieve all this and a huge thank you to everyone who is helping IDDT to help people with diabetes in Ukraine.

# Reading Food Nutrition Labels

**The first thing to say about reading food labels is how very difficult it is because the print is very small. In fact, it can be**

“very, very, small indeed”.

The reason for this is simply because of the amount of information that is legally required to be displayed on food labels. More importantly, the second thing to say is that, for someone with diabetes, being able to understand the nutritional content of pre-packed/pre-prepared food is one of the key elements of managing the condition.

## What information has to be displayed by law?

The legal requirements for food labelling are extensive and complex. However, labels must show, as a minimum, the following:

- the name of the food
- a 'best before' or 'use by' date
- any necessary warnings, for example, allergens
- net quantity information
- a list of ingredients (if there is more than 1)
- the country or place of origin, if required
- a lot number
- any special storage conditions
- instructions for use or cooking, if necessary

A full set of the government guidance can be found here:

[www.gov.uk/food-labelling-and-packaging/food-labelling-what-you-must-show](http://www.gov.uk/food-labelling-and-packaging/food-labelling-what-you-must-show)

## Nutrition labelling

There is a variety of nutritional information that is displayed on food labels some of this is mandatory but producers may choose to display additional information if they wish. This information is divided into two groups, back of pack and front of pack.

## Back of Pack Nutrition (BoP) Labelling

Since December 2016, it's been mandatory for the majority of pre-packed foods to display a nutrition declaration for the product. Nutrition labels must display the amount of energy (calories and kilojoules)

and the amount of fat, saturated fat, carbohydrates, sugars, proteins and salt (all expressed in grams) present in 100g (or 100 ml) of the food. The amounts of energy, fat, saturated fat, carbohydrates, sugars, proteins and salt are collectively referred to as the Reference Intake (RI).

In addition to these mandatory requirements, nutrition information may also be expressed per portion, provided the number of portions present in the pack is quoted.

**Energy** - The amount of energy in foods and drinks must be shown in kilocalories (kcal) and kilojoules (kJ). One kcal equates to 4.184 kJ. As a guide:

- the average man needs around 2,500kcal (10,500kJ) a day to maintain his weight
- the average woman needs around 2,000kcal (8,400kJ)

These amounts can vary depending on an individual's age and levels of physical activity, among other factors. For children, calorie intake will also vary depending on a number of factors - such as age and how physically active they are.

**Nutrients** - The fats, saturated fats, salt and sugar contained in the product are shown in grams (g) and frequently as a percentage (%) on the food label. This percentage is the amount of each nutrient that the product contributes to the recommended daily intake of each nutrient required for a healthy, balanced diet.

The percentage figures are only included on a voluntary basis and may be included on either the back or front of packaging as shown on the illustrations below. RI values are based on an average-sized woman doing an average amount of physical activity. As part of a healthy balanced diet, an adults' RI for a day are:

- energy: 2,000kcal (8,400 kJ)
- total fat: 70g
- saturates: 20g
- carbohydrate: 260g
- total sugars: 90g
- protein: 50g
- salt: 6g

These values can vary from person to person, but give a useful indication of how much the average person needs.

Nutrition				
Typical values	100g contains	Each slice (typically 44g) contains	% RI*	RI* for an average adult
Energy	985kJ 235kcal	435kJ 105kcal	5%	8400kJ 2000kcal
Fat	1.5g	0.7g	1%	70g
of which saturates	0.3g	0.1g	1%	20g
Carbohydrate	45.5g	20.0g		
of which sugars	3.8g	1.7g	2%	90g
Fibre	2.8g	1.2g		
Protein	7.7g	3.4g		
Salt	1.0g	0.4g	7%	6g

This pack contains 16 servings  
\*Reference intake of an average adult (8400kJ / 2000kcal)

**Table 1.** Example of a Back of Pack nutrition label showing mandatory and voluntary RI information.

**Supplementary Nutrients** - Table 1 sets out the mandatory information needed for a nutrition declaration. However, information may also be provided voluntarily on some additional nutrients:

- mono-unsaturated fats
- polyunsaturated fats
- polyols (sugar alcohols)
- starch
- fibre
- vitamins and minerals

These are the only nutrients which may be added to supplement the mandatory nutrition declaration and can be used as required. They do not all have to be included and may be chosen to suit the particular food. You will see that Table 1 includes fibre as a supplementary nutrient on a voluntary basis.

### Front of Pack (FoP) Nutrition Labelling

Providing the information in Table 1 has been given, many food producers also display voluntary, FoP nutrition information using a colour-coded, traffic light labelling system to highlight the nutrition content of pre-packaged food and drink. The colours show if the product contains high, medium or low levels of energy, fat, saturates, sugars and salt. This is to help consumers understand the information at a glance and make informed food choices and manage their diet. For an example, see Table 2 below:

Each grilled burger (94g) contains

Energy 924kJ 220kcal	Fat 13g	Saturates 5.9g	Sugars 0.8g	Salt 0.7g
11%	19%	30%	<1%	12%

of an adult's reference intake  
Typical values (as sold) per 100g: Energy 966kJ / 230kcal

**Table 2.** One example of a traffic light nutrition label

### Broadly speaking

(remember it is only a quick glance guide):

- Red means high - Red colour coding means the product is high in this nutrient and should be eaten in smaller amounts.
- Amber means medium - If a food label displays mainly amber indications, you can eat it most of the time.
- Green means low - The greener indications a label displays, the healthier the choice.
- Most labels carry a mixture of red, amber and greens. Try to buy products that are a mixture of amber and greens as these are often healthier choices. However, you will see that the traffic light system only shows "sugars", rather than "carbohydrates, including sugars", which should be an important consideration.

### Ingredients and Allergens

All pre-packed products have to display a list of ingredients if there is more than one ingredient. This allows you to assess a products' suitability for you. For example, if the product may contain ingredients to which you may be intolerant or allergic.

Food producers must emphasise allergens within the ingredients listed on the label of pre-packed foods. To do this, they might use bold, underline, italics or change the colour of the text.

There are 14 specified substances or products causing allergies or intolerances which must be highlighted:

- cereals containing gluten
- crustaceans - including prawns, crabs, lobster and crayfish
- peanuts
- eggs
- fish
- nuts - including brazil nuts, pistachios, almonds, hazelnuts, walnuts, pecans, cashews and macadamia nuts
- soybeans
- milk
- celery and celeriac
- mustard
- sesame
- lupin
- molluscs - including clams, mussels, whelks, oysters and squid
- sulphur dioxide/sulphites (a preservative found in some dried fruit) - but only when present in concentrations over 10 mg/kg or 10 mg/l

These Regulations also state that allergen information must be available for all food sold loose, not pre-packed. This includes food sold from deli counters, retail outlets and food served by mass caterers in hotels, restaurants, cafes and takeaway establishments etc.

More information on mandatory nutrition labelling can be found on the Food Standards Scotland (FSS) website:

[www.foodstandards.gov.scot/business-and-industry/safety-and-regulation/labelling/nutrition-labelling-requirements](http://www.foodstandards.gov.scot/business-and-industry/safety-and-regulation/labelling/nutrition-labelling-requirements)

The NHS website also has information on food labelling:

[www.nhsinform.scot/healthy-living/food-and-nutrition/food-packaging/food-labelling](http://www.nhsinform.scot/healthy-living/food-and-nutrition/food-packaging/food-labelling)

# Metformin – Take 3

You may remember that a while ago we ran an article on current research surrounding the widely used Type 2 drug called, Metformin – Take 2. Well, the published interest in the drug has continued, so, by way of an update, here is Metformin – Take 3.

Because there has been so much research to report on, we have kept this article to a set of bullet points but if you want any further information then please contact IDDT using the details on the back of this newsletter

## • Metformin for Atrial Fibrillation?

US researchers have identified metformin, as a possible treatment for atrial fibrillation (AF), which is an irregular or rapid heartbeat.

What they discovered was that metformin targets no fewer than 30 genes associated with atrial fibrillation, with direct effects on gene expression for eight of them. Because of the high-tech methods the researchers applied to their analysis, they were able to make their discoveries with surprising speed, estimating that they can reduce the development of new drug treatments by 10 years or more.

## • Can Metformin Reduce Need for Total Joint Replacement in Diabetes?

Data suggests that metformin may help reduce risk for total joint replacement in people with type 2 diabetes. Researchers at the University of Tasmania in Australia followed 20,347 metformin-treated participants and 20,347 non-users over a 24-month follow-up period. They found that metformin use was associated with a 30% decrease in the risk of total knee and hip replacements. However,

they were keen to stress that the research does not prove a causal link and that we are a long way from the prescribing of metformin specifically to prevent or mitigate osteoarthritis.

## • Metformin Failure Linked to Certain Factors.

Metformin failure means that the drug doesn't adequately control blood glucose levels. It is defined as not reaching an HbA1c level below 7% within 18 months of starting the drug. Researchers looked at 150 clinical factors and found that higher HbA1c at the start of treatment was the strongest predictor of metformin failure, with a rapid increase in risk appearing between 7.5% and 8.0%. Other less strongly correlated factors included increasing age, male gender, and race/ethnicity. Researchers said that the data is "suggestive to say maybe we need to have some kind of threshold where if someone comes in with an HbA1c of X that they go on dual therapy right away."

## • Metformin linked to Lower Death Risk from a Respiratory Infection.

For this study, researchers used data from the U.S. Department of Veterans Affairs to look at the effect of taking metformin on mortality among veterans ages 65 and older with a history of diabetes, who were hospitalised for pneumonia. They found that metformin users were 14% less likely to die over a 30-day period and 15% less likely to die over a 90-day period. Given the findings, the researchers suggested that the drug could potentially be used in a hospital setting to help lower blood glucose levels and improve other outcomes in patients with diabetes and pneumonia.

### • Taking Metformin as Prescribed Linked to Lower Neurodegenerative Disease Risk.

Taking metformin is linked to a lower risk of developing neurodegenerative diseases, such as Alzheimer's disease and Parkinson's disease, in people with diabetes, according to a new analysis published in the journal Diabetic Medicine.

Overall, the researchers found that metformin users were 23% less likely than non-metformin users to develop neurodegenerative diseases. But the apparent benefit from taking metformin was even greater in some groups. Long-term metformin users (those taking the drug for at least four years) were 71% less likely to develop neurodegenerative diseases. They recommended further research to confirm that taking metformin reduces the risk for neurodegenerative diseases.

### • "Breakthrough Study" Diabetes Drug helps prevent Long COVID..

Long COVID comprises a wide range of symptoms that persist for months after the individual has recovered from the initial COVID infection. Symptoms include headaches, fever, debilitating fatigue, loss of taste or smell, and more serious symptoms, such as cardiovascular complications, cognitive and neurological impairments, and renal and gastrointestinal problems.

This clinical trial assessed the efficacy of early outpatient treatment of COVID-19 patients with fluvoxamine, ivermectin, or metformin. Overall, the findings indicated that early treatment of COVID-19 patients with metformin not only reduced the risk of hospitalisation and mortality by 40% but also decreased the probability of developing long COVID symptoms. Treatment with the other drugs did not show similar success in preventing long COVID development.

### • Metformin sometimes smells like dead fish.

The smell of a dead fish is one of the worst smells around. Understandably, if your medicine smells like this, it's going to be hard to swallow and many people find that fishy metformin increases the chances of nausea. What causes the fishy smell?

Apparently, generic metformin has a higher likelihood of smelling bad. If you notice a bad smell when you open your metformin container, you can try a couple of things, such as holding your nose when you take it, or talk to your doctor about switching to another brand of metformin, possibly an extended-release version.



# Carbohydrates, Proteins, Fats, Kilocalories and Kilojoules - Strange Relations?

## What are we talking about?

You should find each of these terms on the labels of all of pre-packed or pre-prepared foods. Taken in isolation, each of these terms is a relatively easy to define. However, once you start to look a little closer at the labelled content of the food you have just bought, the relationship between the terms can start to become more complex and confusing.

In the UK there is a legal requirement for food producers to provide the relative

amounts of carbohydrates, proteins and fats. Producers are also required to provide information on the amount of energy that is derived from each food group component and also the energy that is provided by the product as a whole.

## The Food Groups

There are several different food groups that will be displayed on labelling but for the purposes of this article we will look at the three of the macronutrients that form the



bulk of the food we eat (as opposed to micronutrients, which are vitamins and minerals that are essential but only needed in small amounts). The different types of food groups provide different amounts of energy at different rates as they are broken down into their basic components. These macronutrients are:

**Carbohydrates.** Carbohydrates are broken down into glucose and are the most rapidly absorbed source of energy. Simple carbohydrates (such as fructose and sucrose) are the most rapidly absorbed.

Complex carbohydrates (found in potatoes, rice, pasta) take longer to be absorbed. However, both types of carbohydrate are absorbed more rapidly than either proteins or fats.

When the body doesn't need to use the glucose for energy, it stores it in the liver and muscles. This stored form of glucose is made up of many connected glucose molecules and is called glycogen. Carbohydrates raise blood sugar levels.

**Proteins.** Proteins are broken down into amino acids. Proteins are complex molecules and the body takes longer to break them down.

As a result, they are a much slower and longer-lasting source of energy than carbohydrates. The body needs protein to maintain and replace body tissues, such as muscles and to function properly, for example, by making hormones. Protein is not usually used for energy. However, if the body is not getting enough energy from carbohydrates or body fat, protein is broken down into ketone bodies to be used for energy. If more protein is consumed than is needed, the body breaks the protein down and stores its components as fat. Protein does not raise blood sugar levels.

**Fats.** Fats are complex molecules composed of fatty acids and glycerol. The body needs fats for growth and energy. It also uses them to synthesize hormones and many other substances needed for the body's activities. Because fats are such an efficient form of energy, the body stores any excess energy as fat.

The body deposits excess fat in the abdomen (visceral fat) and under the skin (subcutaneous fat) to use when it needs more energy. The metabolism of fat does not raise blood sugar levels.

### Energy Measurements

The macronutrient groups all supply your body with energy. This energy is released when foods are broken down during digestion. Energy enables cells to do all of their functions, including building proteins and other substances needed by the body.

The energy can be used immediately or stored for use later. The energy content of food is measured in two ways:

**Calories/Kilocalories** – The term calorie is commonly used as shorthand for kilocalorie. You will find this written as kcal on food packets. The term “Calorie” is, arguably, the one most people are familiar with when we talk about the amount of energy we get from what we eat and drink.

**Kilojoules** – Kilojoules (kJ) are the equivalent of kilocalories within the International System of Units.

You will see both kJ and kcal on nutrition labels. 1kcal is equivalent to approximately 4.2kJ, so, for example, a 100 gram serving of cooked pasta is 176 kcal (calories) or 745.8kJ.

### So how does the weight of the food we eat translate into the energy provided?

These macronutrients supply 90% of the dry weight of our diet and 100% of our energy. All three provide energy (measured in calories), but the amount of energy in 1 gram of each differs:

- One gram of carbohydrate becomes 4 calories.
- One gram of protein becomes 4 calories.
- One gram of fat becomes 9 calories.

### How does this translate into what we may actually eat? Some examples....

Below are a few, very simple examples of foods we may eat, the proportion of each of our chosen food groups they contain and the respective amounts of calories they will provide for an average or measured portion:

Food	Food Group(s)	Calorie (kcal) breakdown per food group	Total Calorie (kcal) count
<b>Porridge Oats (40 g serving)</b>	Carbs – 24.4 g Protein – 4.1 g Fat – 2.8 g	Carbs - 97.6 kcal Protein – 16.4 kcal Fat – 25.2 kcal	145.2 kcal
<b>Eggs (1 large)</b>	Carbs – 0.5 g Protein – 8.3 g Fat – 5.7 g	Carbs – 2 kcal Protein – 33.2 kcal Fat – 51.3 kcal	85 kcal
<b>Multigrain bread (per slice)</b>	Carbs – 12.1 g Protein – 2.6 g Fat – 1 g	Carbs – 48.4 kcal Protein 10.4 kcal Fat – 9 kcal	65 kcal
<b>Potato (Maris Piper 175 g serving)</b>	Carbs – 27.8 g Protein – 3.2 g Fat – 0.5 g	Carbs – 111.2 kcal Protein – 12.8 kcal Fat – 4.5 kcal	131 kcal
<b>Green Cabbage (100 g serving)</b>	Carbs – 5.6 g Protein – 1.5 g Fat – 0.1 g	Carbs – 22.4 kcal Protein – 6 kcal Fat – 0.9 kcal	24 kcal
<b>Chicken Fillet (skinless 150 g)</b>	Carbs – 1 g Protein – 45.9 g Fat – 2.4 g	Carbs – 4 kcal Protein – 184 kcal Fat – 21.6	206 kcal
<b>Apple (Braeburn, medium, each)</b>	Carbs – 9.4 g Protein – 0.3 g Fat – 0 g	Carbs – 37.6 kcal Protein – 1.2 kcal Fat – 0 kcal	43 kcal
<b>Vanilla Ice Cream (per 47g scoop)</b>	Carbs – 11.2 g Protein – 1 g Fat – 2.5 g	Carbs – 44.8 kcal Protein – 4 kcal Fat – 22.5 kcal	72 kcal

\* These are only rough examples and different suppliers/producers will produce varying products, so check the labels if you are shopping from different supermarkets or buying different brands.

\*\* There will be variation in the respective proportions/measures above as we have not included some nutritional groups, such as fibre, which can impact on weights and measures.

### To put things in perspective, what are the NHS guidelines on calorie intake?

An ideal daily intake of calories varies depending on age, metabolism and levels of physical activity, among other things.

Generally, the recommended daily calorie intake is 2,000 calories a day for women and 2,500 for men. The actual amount of energy you need will depend on:

**Your Age** – for example, growing children and teenagers may need more energy.

**Your Lifestyle** – for example, how active you are.

**Your Size** – your height and weight can affect how quickly you use energy. Other factors can also affect how much energy you burn. For example:

**Some Hormones** (chemicals produced by the body) – such as thyroid hormones.

**Some Medicines** – such as glucocorticoids, a type of steroid used to treat inflammation.

**Being Unwell.**

### The principles of weight loss and weight loss for people with diabetes

For people with Type 2 diabetes one of the

first things they are often advised to do is to lose weight.

There are several reasons for this. Just a 10% reduction in your body weight will increase the likelihood that:

- Your blood glucose levels will drop and you will need less or no medication as a result.
- Your blood pressure will reduce.
- Your cholesterol levels will fall.

In theory, losing weight is easy. If you eat fewer calories than you use up, then you will lose weight. As we have said, on average, a woman needs 2000 calories per day and a man 2500 calories a day. If you reduce your calorie intake by 500 calories a day then you should lose around half a kilo (about a pound) a week. You will lose more energy if you take extra exercise, such as walking, gardening, swimming, housework or cleaning the car.

Unfortunately, in reality, losing weight is not easy and keeping the weight off is harder still. There are several things you can do to help you lose weight and these involve some simple lifestyle changes. You can try and make these changes one at a time, at your own pace so that you can feel that you have mastered each change before moving on to the next.

These are some tips as to how you can change your eating habits so that you can lose excess weight:

- Eat more slowly to make the meal last.
- Try eating from a smaller plate – it makes it look as if you have more food.
- Fill your plate with vegetables or salad.
- Try to cook tasty, low-calorie foods that can be shared by the rest of the household so you won't feel left out.
- Don't feel you have to clean your plate – stop eating when you have had enough.
- Set realistic targets for losing weight – don't set yourself up to fail by being over-ambitious.
- Allow yourself the occasional treat to avoid getting bored or frustrated with your diet.
- Be wary of the hidden calories in things like salad dressing and sauces.
- Make a shopping list before going to the supermarket and stick strictly to the list.
- Never go shopping for food when you are hungry.
- Avoid extra alcohol.

IDDT does not advocate any particular diet to lose weight. We would recommend that you choose a diet that suits your individual lifestyle and that of those around you, which supports your goal to lose weight but is realistic and sustainable.

If you found this article of interest and would like to know more, IDDT produce a **FREE** booklet "Diabetes – Everyday Eating" that provides a wide range of information and advice about diabetes and eating and also has a four-week menu plan. To obtain your **FREE** copy simply contact IDDT using the details at the end of this newsletter.

## Diabetes and UTIs

### What are UTIs?

As the name suggests, urinary tract infections (UTIs) affect your urinary tract. It is a general term for infections that can affect your bladder (cystitis), urethra (urethritis), or kidneys (kidney infection). Symptoms include:

- pain or a burning sensation when peeing (dysuria)
- needing to pee more often than usual during the night (nocturia)
- pee that looks cloudy, dark or has a strong smell
- needing to pee suddenly or more urgently than usual

- needing to pee more often than usual
- blood in your pee
- lower tummy pain or pain in your back, just under the ribs
- a high temperature, or feeling hot and shivery
- a very low temperature below 36C

Older or frail people may also experience:

- changes in behaviour, such as acting agitated or confused (delirium)
- wetting themselves (incontinence)
- new shivering or shaking (rigors)

## Why are UTIs more common among people with diabetes?

UTIs are the second most common type of infection. Sorry ladies, but women are 10 times more likely to get a UTI than men because of their anatomy. In fact, more than 50% of women will have a UTI at some point in their lives. If you're a woman with Type 2 diabetes, your risk may be even higher.

Why are people with diabetes more prone to UTIs? There are likely to be several possible reasons. First, people with diabetes may have poor circulation, which reduces the ability of white blood cells to travel in the body and fight off any kind of infection. Second, high blood glucose levels can also raise the risk of a UTI. High levels of glucose in the urine can provide good conditions for the levels of bacteria that can cause UTIs to become a problem. Thirdly, some people with diabetes have bladders that don't empty as well as they should, due to autonomic neuropathy. As a result, urine stays in the bladder too long and becomes a breeding ground for bacteria.

## How are UTIs diagnosed?

UTIs are usually diagnosed by testing a urine sample for the presence of bacteria. If UTIs become a regular and/or persistent problem you may be referred for other tests such as ultrasound, MRI or CT scan.

See a GP if:

- you have symptoms of a urinary tract infection (UTI) for the first time
- you're a man with symptoms of a UTI
- you're caring for an older, frail person who may have symptoms of a UTI
- you have symptoms of a UTI after surgery
- your symptoms get worse or do not improve within 2 days
- your symptoms come back after treatment

## How are UTIs treated?

Treatment from a GP may include:

- offering self-care advice and recommend taking a painkiller
- giving you a prescription for a short course of antibiotics
- giving you a prescription for antibiotics, but suggest you wait for 48 hours before taking them in case your symptoms go away on their own

If your UTI keeps coming back or recurs within 6 months then your GP may:

- prescribe a different antibiotic or prescribe a low-dose antibiotic to take for up to 6 months
- prescribe a vaginal cream containing oestrogen, if you have gone through the menopause
- refer you to a specialist for further tests and treatments

For some people, antibiotics do not work or urine tests do not pick up an infection, even though you have UTI symptoms. This may mean you have a long-term (chronic) UTI that is not picked up by current urine tests. You should consider asking the GP for a referral to a specialist for further tests and treatments.

Things you can do yourself to help ease symptoms of a urinary tract infection (UTI):

- take paracetamol up to 4 times a day to reduce pain and a high temperature – for people with a UTI, paracetamol is usually recommended over NSAIDs, such as ibuprofen or aspirin
- rest and drink enough fluids so you pass pale urine regularly during the day
- avoid having sex

A pharmacist can help with UTIs.

A pharmacist can:

- suggest the best painkiller to take
- tell you if you need to see a GP about your symptoms
- Some pharmacies offer a UTI management service. They may be able to give antibiotics if they're needed.

## Prevention

As is always the case, prevention is better than cure. These are some Do's and Don'ts, recommended by the NHS to avoid UTIs:

- suggest the best painkiller to take
- tell you if you need to see a GP about your symptoms
- some pharmacies offer a UTI management service. They may be able to give antibiotics if they're needed.



## Prevention

As is always the case, prevention is better than cure. These are some Do's and Don'ts, recommended by the NHS to avoid UTIs:

### Do

**Wipe from front to back when you go to the toilet.**

**Keep the genital area clean and dry.**

**Drink plenty of fluids, particularly water – so that you pee regularly during the day and do not feel thirsty.**

**Wash the skin around the vagina with water before and after sex.**

**Pee as soon as possible after sex.**

**Promptly change incontinence pads if they're soiled.**

### Don't

**Do not wear tight synthetic underwear, such as nylon, wear cotton instead.**

**Do not use scented soap.**

**Do not hold in your pee if you feel the urge to go do not rush when going for a pee – try to fully empty your bladder.**

**Do not use condoms, diaphragm or cap with spermicidal lube on them – try non-spermicidal lube or a different type of contraception.**

**Do not drink lots of alcoholic drinks, as they may irritate your bladder.**

People sometimes recommend taking d-mannose or cranberry products to prevent UTIs coming back. However:

- d-mannose and cranberry products can contain a lot of sugar and can raise your blood sugar levels
- lots of sugary food or drinks may increase the amount of sugar in the urinary tract and encourage bacteria to grow
- there is little scientific evidence to show that these products have a beneficial effect
- if you're taking warfarin, you should avoid cranberry products

### **What Is Interstitial Cystitis (IC)?**

IC is a chronic condition characterised by:

- Pain in the bladder, along with urinary frequency and urgency
- Absence of other conditions or diseases that could cause similar symptoms, including a UTI, bladder cancer, endometriosis (in women), or prostate problems (in men)

As with the UTIs discussed above, people with diabetes have an increased risk of developing IC and, again, women are up to ten times more likely to develop the condition compared to men.

Your health care provider will use a combination of approaches to diagnose IC, including your medical history, a physical exam, and lab tests. There are different forms of IC and therefore different people will respond to different forms of treatment. Types of treatment include:

- Lifestyle changes, such as stopping smoking and reducing stress can help relieve symptoms
- Bladder training, such as using a bladder diary to stretch out trips to the loo
- Physical therapy can be helpful if you have pelvic floor muscle spasms or muscle tenderness/pain
- Medication including nonsteroidal anti-inflammatory drugs, antidepressants, antihistamines, cyclosporine can help relieve symptoms
- Bladder instillation, where a doctor puts a small amount of liquid medicine in the bladder, and then adds liquid to ease irritation of the bladder wall
- Nerve stimulation such as TENS to send electrical impulses to the pelvic area or bladder can alleviate symptoms

The NHS website is a useful source of information about UTIs. Go to: [www.nhs.uk/conditions/urinary-tract-infections-utis/](http://www.nhs.uk/conditions/urinary-tract-infections-utis/)

# BITS AND PIECES

## • **New Thoughts - Just 8 Minutes of Exercise a Day Is All You Need.**

You can get all the exercise you need in just 8 minutes a day if you work out a bit harder, according to a new study in the European Heart Journal. Scientists examined data from fitness trackers worn by more than 71,000 people studied in the United Kingdom, then analysed their health over the next several years. They found that a tough, short workout improves blood pressure, shrinks artery-clogging plaques, and boosts your overall fitness.

This may be good news for those short on time, potentially reducing weekly exercise time recommendations by 75%.

## • **Loneliness linked to increased risk for Type 2 diabetes.**

Loneliness, which may trigger elevated levels of stress hormones leading to temporary insulin resistance, could as much as double the risk of developing Type 2 diabetes, according to a Norwegian study. Researchers noted previous studies that found a link between loneliness and unhealthy dietary behaviours, prompting them to question how loneliness impacts stress hormones and health-related behaviour and "how these two pathways interact in terms of contributing to an increased risk of Type 2 diabetes." (Diabetologia, September 2022)

## • **Is vitamin B12 deficiency a risk factor for gastroparesis in patients with Type 2 diabetes?**

Diabetic gastroparesis is where food passes through the stomach slower than it should and is commonly regarded as a form of diabetic neuropathy. Vitamin B12 is a key player in the function of the nervous system. Researchers, who recently published the findings of a study in "Diabetology & Metabolic Syndrome", hypothesised as to whether vitamin B12 deficiency could be implicated in the development of diabetic gastroparesis. They found that the frequency of vitamin B12 deficiency in total patients with T2 diabetes was 35% and concluded that vitamin B12 deficiency is an independent predictor of diabetic gastroparesis in people with T2 diabetes.

More information about vitamin B12 deficiency can be found here:

[www.nhs.uk/conditions/vitamin-b12-or-folate-deficiency-anaemia/](http://www.nhs.uk/conditions/vitamin-b12-or-folate-deficiency-anaemia/)

## • **Older Class of Type 2 drug linked to reduced dementia risk.**

A class of medicines, known as thiazolidinediones, have been linked to a reduced to a lower risk of dementia. (The only drug in this class, available on prescription in the UK. Is pioglitazone.) The study, published in BMJ Open Diabetes Research & Care, looked at changes in memory and thinking over the two and a half years since the beginning of the study. They found that those taking the DPP-4 inhibitors had a slower decline in memory and thinking compared to those not taking the medication.

## • **Martin Lewis (Money Saving Expert) urges consumers to check if they can save on prescription costs with a 'season ticket' after April price hikes.**

Back in April this year the cost of a single item on prescription rose from £9.35 to £9.65. People with diabetes who take medication for their diabetes are entitled to any prescription item free, providing they have a valid medical exemption certificate (Contact your GP practice and request a Medical Exemption (EC92A) if you don't already have one). Even if you have diabetes managed by just diet and exercise but still have a regular monthly prescription for just one item then a Pre-payment Certificate (PPC) will save you money. A 12-month PPC costs £111.60 and can be spread over 12-monthly payments. Basically, the more items you are prescribed the more you can save with a PPC.

## • **Weight regain and cardiometabolic effects after withdrawal of semaglutide.**

An American study, published last year, looked at the effect of the withdrawal of semaglutide (Ozempic) on weight and cardiometabolic factors, such as cholesterol, lipids and HbA1c on people with pre-diabetes. The researchers found that, after a substantial reduction in body weight during 68 weeks of treatment, subsequent

treatment withdrawal led to most of the weight loss being regained within 1 year, and a similar change in some cardiometabolic variables back to baseline. Researchers concluded that the findings reinforce the need for continued treatment to maintain weight loss and cardiometabolic benefits.

• **A comparison of Type 2 drugs and their effect on lung function for people with Type 2 diabetes and Chronic Obstructive Pulmonary Disease (COPD).**

This study looked at whether the use of glucagon-like peptide 1 (GLP-1s) receptor agonists, dipeptidyl peptidase 4 (DPP-4) inhibitors or sodium-glucose co-transporter-2 (SGLT-2s) inhibitors could be associated with improve lung function in people with COPD and Type 2 diabetes. They found that the use of GLP-1 receptor agonists and SGLT-2 inhibitors were associated with better lung function, compared with sulfonylureas, whereas any improvement associated with DPP-4 inhibitor use, if any, was small.

• **Proton Pump Inhibitors (PPIs) raise the risk of Cardiovascular Disease (CVD) in T2D.**

PPIs are used to relieve symptoms of heartburn and indigestion and also to protect the stomach from irritation that can be caused by some medications. Commonly prescribed PPIs include Lansoprazole and Omeprazole. A large UK-based study has now found that PPI use in people with Type 2 diabetes is associated with an increased risk of cardiovascular disease, such as coronary artery disease, myocardial infarction and heart failure. For people with Type 2 diabetes, proton pump inhibitor use was associated with all-cause mortality.

Researchers point out that the findings suggest that clinicians should consider benefit-risk assessments before prescribing PPIs to people with Type 2 diabetes.

• **Nitrites in Food and Water Linked to Increased Type 2 Diabetes Risk.**

Exposure to a group of chemicals called nitrites in food and water is linked to a higher risk of developing Type 2 diabetes, according to a new study. Nitrites are often part of, or the byproduct of, preservatives added to certain processed foods, including bacon,

sausage, and lunch meats. The researchers found that participants with a higher level of nitrite consumption from food additives were 53% more likely to develop Type 2 diabetes than those with no exposure to nitrites from food additives. The researchers point out that although the study does not prove that nitrites cause diabetes, it does suggest a strong link and that it might be a good idea to consider limiting your consumption of these chemicals.

• **National Institute for Health and Clinical Excellence (NICE) Quality standard [QS209] Published: 02 March 2023.**

In March this year, the NICE quality standard for people with Type 2 diabetes was updated and replaced the previous quality standard. The topic was identified for update following a review of quality standards. The review identified:

- changes in the priority areas for improvement
- new and updated guidance on type 2 diabetes in adults
- that the quality standard on diabetes in adults should be split into separate quality standards on type 1 diabetes in adults and type 2 diabetes in adults.

The full standard can be found here: [www.nice.org.uk/guidance/qs209](http://www.nice.org.uk/guidance/qs209)

• **More guidance from NICE: Finerenone (Kerendia) for treating chronic kidney disease (CKD) in Type 2 diabetes.**

For CKD associated with Type 2 diabetes, finerenone is clinically effective compared with placebo, and improves outcomes when added to standard care (with or without SGLT2 inhibitors).

NICE concluded that finerenone is recommended for stage 3 and 4 CKD (with albuminuria) associated with Type 2 diabetes only as an add-on to optimised standard care including ACE inhibitors or ARBs, and SGLT2 inhibitors (unless these are unsuitable).

The full guidance can be found here: <https://www.nice.org.uk/guidance/ta877>



## IDDT Event 2023 – 'Tips, Techniques and Trials'



We are holding an Event for you again this year. It will be held at the Kettering Park Hotel on Saturday, 30th September 2023 and there is an event booking form accompanying this Newsletter. The day will start with our Annual General Meeting and then it will be an interesting day with speakers and group discussions. The title is 'Tips, Techniques and Trials' to reflect some of the issues that are important to people living with diabetes.

We are pleased to tell you that we are being joined by Dr Mayank Patel, Consultant diabetologist and we hope to also have a pharmacist as one of our speakers. We will also be joined by Jane Chatham from Abbott Laboratories, manufacturers of the Freestyle Libre.

So, something for everyone and we hope that you and your family - the spouses, the partners and the parents of those with diabetes, will be able to join us at the event. Just complete the form and return it to IDDT. Remember, the date for your diary is 30th September 2023!

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

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

Tel: 01604 622837 email: [enquiries@iddtinternational.org](mailto:enquiries@iddtinternational.org) Or visit our website: [www.iddtinternational.org](http://www.iddtinternational.org)



## LOTTERY RESULTS

### WINNERS OF THE JANUARY 2023 DRAW ARE:

- 1st prize of **£481.44** goes to Anon from Cardiff
- 2nd prize of **£361.08** goes to Janet from Bexley
- 3rd prize of **£240.72** goes to Anon from Exeter
- 4th prize of **£120.36** goes to Ian from Cardiff

### WINNERS OF THE FEBRUARY 2023 DRAW ARE:

- 1st prize of **£482.40** goes to John from Farnborough
- 2nd prize of **£375.50** goes to Anon from Larkhall
- 3rd prize of **£241.20** goes to Paul from Wetherby
- 4th prize of **£120.60** goes to Sylvia from Kettering

### WINNERS OF THE MARCH 2023 DRAW ARE:

- 1st prize of **£482.88** goes to Anon from Stratford on Avon
- 2nd prize of **£362.16** goes to Neil from Thetford
- 3rd prize of **£241.44** goes to Shelley from Bedford
- 4th prize of **£120.72** goes to Anon from Doncaster

Note: The winners of the draws for April, May and June 2023 will be announced in our June 2023 Newsletter and on our website.

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