



# Welcome

Welcome to the fifty-fourth issue of Type 2 and You and the first issue for 2023. Spring is underway and now is a good time to get rid of the winter cobwebs. We have devoted a significant part of this newsletter to exercise and, more importantly, how to choose the type of exercise that is right for you.

As a thank you for your support, we are very pleased to launch our **"Make Your Will for Free"** scheme.

This offer is only available to our members. We have a report on our 2022 event and how well it was received. In the next newsletter

we will have more details of this year's event and would very much like to see you there.

We also write about chronic inflammation and diabetes, try to answer some common questions and have our usual collection of Bits & Pieces.

2023 has some potentially interesting and important developments for people with diabetes and we hope you will continue to support us throughout the year!



## Fasting and Diabetes

This year Ramadan and Easter fall earlier than 2022, so we are looking at religious fasting and its impact on the management of diabetes during periods of abstinence and fasting. Two major religions, Islam and Christianity, have periods of fasting around this time of year (many other religions also have fast periods).

Many readers will have fasted before, so this article may be just a reminder but for those of you who have not, we look at fasting practices and general issues around diabetes and fasting and hope we provide some helpful tips for staying safe and well during your fast.

### Islam - Ramadan

Ramadan is based on the ninth month of the lunar calendar and moves forward each year by about 11 days which means the length of fasting is greater in certain years than others.

This year the fast of Ramadan will commence at sunset on 22nd March and will last until

21st April. During Ramadan it is expected that Muslims who participate will abstain from food, water, beverages, smoking, oral drugs and sexual intercourse from sunrise to sunset.

### Christianity - Lent/Easter

Easter Sunday is celebrated on the first Sunday following the full Moon that occurs on or just after the spring equinox. Although not followed by all Christian denominations, Lent lasts for 40 days, concluding on Maundy Thursday, immediately prior to Easter Sunday. This year, Lent is from 22nd February to 6th April and Easter Sunday is on 9th April. During Lent, certain days are regarded as fast days, which again has implications for people with diabetes.

### Diabetes and fasting

People with diabetes of either faith may be exempted from fasting but the majority of people with diabetes do fast so run increased risks of health adverse effects, such as hypoglycaemia, hyperglycaemia, diabetic ketoacidosis and dehydration.

A charity supporting and listening to people who live with diabetes

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

Charity Number 1058284 Registered Number 3148360

[enquiries@iddtinternational.org](mailto:enquiries@iddtinternational.org)

Most of these are as a result of a reduction of food and fluid intake and the timing of meals.

If you have diabetes fasting can cause complications in managing the condition, some, arguably, more serious than others. The best first step is to speak to your doctor or diabetes nurse to discuss the potential risks and problems associated with fasting. This will help you to formulate a plan to manage the period of your fast. Things you may want to think about and discuss could include:

- Complications of diabetes, such as poor vision or heart or kidney disease, can be aggravated by fasting and you may want to consider whether to fast or not.
- If you take insulin and/or certain tablets, you may need to think about changing the amount and timing of your insulin dose to control blood sugar levels. You may also need to change the type of insulin you are using, for example, pre-mixed insulins are not recommended during fasting.

Research has shown that both education about the effects of fasting and relevant advice can dramatically reduce the likelihood of problems occurring, both low and high blood sugar levels. High blood glucose levels

can develop during a fast if you do not take prescribed medication or if you are less physically active than normal, which, in turn, could lead to diabetic ketoacidosis (DKA) – a serious condition requiring hospital treatment.

If you are still happy to proceed with your fast then there are some simple, common-sense tips and tricks to help manage your diabetes:

- Before starting the fast, you should eat foods containing slowly absorbed carbohydrates, such as rice, dhal, potatoes and pasta, along with fruit and vegetables.
- You should check your blood glucose levels more often than you normally would.
- When you break the fast, have only small quantities food and avoid eating only sweet or fatty foods.
- Try to eat just before the break of dawn, when you commence the next day's fast.
- At the end of fasting, you should drink plenty of sugar-free and decaffeinated fluids to avoid being dehydrated.

**Above all – Stay safe and well!!!**

## Making your Will for Free

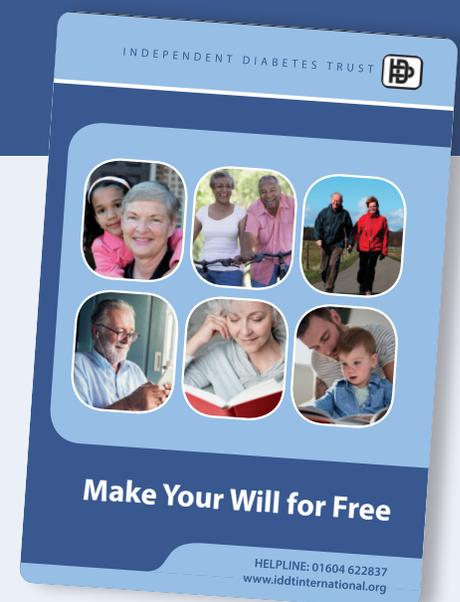
In December we wrote about the importance of making a Will, in order to protect the future of our loved ones. We also explained about how important it is to consider leaving a gift to charity and how reliant IDDT is on the generosity of people who have remembered us when drafting their Will.

With this in mind IDDT has joined with The Goodwill Partnership to offer its members the opportunity to draft a new or updated Will at no cost to themselves. The Goodwill Partnership is a well-established organisation that currently works with over 150 charities to assist their supporters to make their Will at no or reduced cost.

In recognition of the value IDDT places on the support it receives from its members, we are not making this offer open to the general public, unlike other charity schemes you may have seen advertised on television.

Accompanying this newsletter is a flyer that gives more information about the scheme. If you are considering making or updating your Will we do hope you will take us up on this offer and possibly give us favourable consideration when you do so.

If you would like to discuss making your Will for Free further, then please contact Martin on **01604 622837** or email [martin@iddtinternational.org](mailto:martin@iddtinternational.org).





?

# Quick Q&As

?

## When do I need to use a new needle with my insulin pen?

In fact, the same principle that applies to changing pen needles also applies to other diabetes injectables like Byetta or Victoza. Insulin pen needles are intended for single use only but it is known that a significant proportion of people with diabetes do re-use needles.

However, there are risks with re-using needles and these risks increase with each re-use. These risks include:

- Bacterial growth on the needle.
- Likelihood of experiencing pain when injecting.
- Risk of lipohypertrophy (lumpy skin) occurring.
- Risk of the very fine tip of the needle breaking off.

The decision whether to re-use or not is ultimately a personal one but you should note that the safety information provided by manufacturers is based on single-use only.

## I have recently been diagnosed with Type 2 diabetes. How does this affect my employment?

The issue of diabetes in the workplace is a wide ranging one, encompassing both legal obligation and points of good practice. Initially, it is advisable to tell your employer about your diabetes. The Equality Act means that your employer cannot discriminate against you because of your condition and, in fact has a legal responsibility to make reasonable adjustments to the workplace or working practices to allow you to continue with your job. Examples of reasonable adjustments for someone with diabetes might be:

- Providing a clean, safe environment in which to test or inject or keep medication.
- Being flexible about working hours (e.g. flexi time, job share, starting later or finishing earlier).
- Modifying duties.
- Transferring to a suitable role within the organisation.
- Allowing time off during working hours (e.g. for treatment, assessment, rehabilitation).
- Alterations to premises.
- Changing practices, policies and procedures (such as allowing more breaks to eat a snack or accommodating a higher level of sickness absence which is related to the condition).

## I have diabetes and cardiovascular disease. I have also been told that I have high LDL cholesterol. What should be my goal LDL ("bad") cholesterol level?

Charity Diabetes UK lists the following blood lipid (cholesterol) targets as a guide for people with diabetes: Total cholesterol: under 4.0 mmol/l. LDL levels: below 2.0 mmol/l. HDL levels: at least 1.0 mmol/l (men) or 1.2 mmol/l (women)

NICE have moved away from advising on specific guidelines for cholesterol but recommend that you have your cholesterol levels checked annually, as part of your 9 key checks. You should discuss your cholesterol levels with your health professional and agree on measures to reduce your cholesterol levels. Steps to lower LDL cholesterol can include medication, reducing your intake of saturated fat, losing weight (if necessary), and increasing the amount of physical activity you do.



## Can stress have an effect on my blood glucose level?

Yes — during periods of stress, the body releases so-called stress hormones, which cause a rise in blood glucose level. If stress becomes chronic, high blood glucose can also become chronic and increase the risk of diabetic complications.

## Should I store my insulin pens/injectables in the refrigerator?

The general rule is that you should only store unused and unopened insulin pens in a fridge (2-8 degrees C). Pens that are in use must be kept at room temperature [15-25 degrees C] for 28 days, then discarded. Other injectables should be stored in the same way. However, always refer to the individual manufacturers' instruction as there may be some variation in advice.

## How can I dispose of my used sharps while on a train or plane?

Never leave your used sharps in a waste basket or in a seat pocket. This could cause a needle-stick injury later. Try carrying an empty, clear water bottle with a screw cap to use as a temporary sharps container. Anyone handling it later will be protected from being stuck.

# Inflammation – Its role in Diabetes

## What do we usually mean by inflammation?

The NHS describes inflammation as “your immune system's natural response to injury or infection. It causes swelling and can help the body deal with invading germs”.

Expanding on this, there are two commonly recognised types of inflammation:

**Acute.** You are probably more familiar with this type of inflammation. Acute inflammation is the swelling, redness, warmth, and pain in or around your tissues and joints in response to an injury, such as a sprained ankle or a wound.

**Chronic.** This type of inflammation is longer-lasting and stealthier. It occurs when the immune system continues to send out inflammatory messages, prolonging the process. Many chronic diseases are linked with chronic inflammation, including Type 2 diabetes, heart disease, high blood pressure, cancer, arthritis, and inflammatory bowel diseases.

## What do we mean by Inflammation when we talk about diabetes?

Type 2 diabetes can be considered to be an inflammatory condition, as are the associated complications, such as heart, kidney, and periodontal (gum) disease. The exact mechanism to explain the relationship between inflammation and Type 2 diabetes

is complex and still being researched. There are two elements to the relationship between diabetes and inflammation. These need to be understood together.

**First the science bit.** It has been known for a long time that people with Type 2 diabetes have higher levels of inflammatory chemicals in their bodies called cytokines. These chemicals are produced by the body's own immune system, usually as a result of injury or illness.

**Second, the lifestyle bit.** People with Type 2 diabetes tend to be overweight. Researchers have found that cytokine levels tend to be elevated in fat cells. Excess body fat, especially in the abdomen, causes continuous

(chronic), low levels of abnormal inflammation that alters insulin's action and contributes to the disease.

**How they fit together.** As Type 2 diabetes starts to develop, the body becomes less sensitive to insulin and the resulting insulin resistance also leads to inflammation. A vicious cycle can result, with more inflammation causing more insulin resistance and vice versa. Carrying excess weight exacerbates this cycle. Blood sugar levels rise higher and higher, eventually resulting in Type 2 diabetes.

There is still debate as to whether cytokines actually cause type 2 diabetes or are produced as a result of it. Either way, people





with Type 2 diabetes have higher levels of cytokines and higher levels of chronic inflammation. Excess body fat, especially in the abdomen, also causes continuous (chronic) low levels of abnormal inflammation that alters insulin's action and contributes to the condition.

## What are the signs of inflammation and how is it diagnosed?

It can be difficult to tell if you have chronic inflammation as you may not see or feel the effects. Symptoms that you may notice can include:

- Fatigue
- Digestive pain or upset
- Weight gain or loss
- Joint pain
- Skin rash

There's no definitive way for your health care provider to diagnose chronic inflammation and it important to be aware that the identification of chronic inflammation is not a diagnostic criteria for diabetes.

However, some of you who have been diagnosed with Type 2 diabetes may recognise these symptoms as occurring before your diagnosis,

If your health professional suspects you may have chronic inflammation it is very likely that they will do blood tests to identify blood "markers" for inflammation. These are:

### Erythrocyte Sedimentation Rate (ESR).

Effectively, this test measures the rate that red blood cells fall to the bottom of a test tube, separating from the clear blood plasma left above. If some proteins stick to the red blood cells, this will cause them to fall more rapidly. Thus, the higher the ESR the more likely it is that there is some inflammation in the body.

**C-Reactive Protein Test ((CRP).** This measures the presence of one specific protein and can help identify specific conditions. This is contrasted with the ESR test which can take into account the presence of several proteins.

**Plasma Viscosity Test (VR).** This is the least commonly used test and is often used as a supportive or monitoring test in addition to the ESR test.

### Erythrocyte Sedimentation Rate (ESR).

Effectively, this test measures the rate that red blood cells fall to the bottom of a test tube, separating from the clear blood plasma left above.

If some proteins stick to the red blood cells, this will cause them to fall more rapidly. Thus, the higher the ESR the more likely it is that there is some inflammation in the body.

### C-Reactive Protein Test ((CRP).

This measures the presence of one specific protein and can help identify specific conditions. This is contrasted with the ESR test which can take into account the presence of several proteins.

**Plasma Viscosity Test (VR).** This is the least commonly used test and is often used as a supportive or monitoring test in addition to the ESR test.

There are guides available as to the "normal" ranges for these test results but results vary according to many factors, not least age and gender, so it is important to talk to your health professional about the results. These are non-specific tests and raised levels may mean "that something is going on" and that further investigation may be needed.

## Cooling the burn – reducing inflammation

Inflammation may be treated in a number of ways, most commonly with medication. However, these medicines don't remove the cause of inflammation and are not used to manage diabetes itself. Medical treatments for inflammation may include:

- **NSAIDs** (non-steroidal anti-inflammatory drugs), such as ibuprofen and naproxen to relieve pain, swelling, and fever.
- **Corticosteroids**, such as prednisone. While effective, the long-term use can lead to other problems.
- **Topical medications**, including analgesics and steroids, may be used for inflammation of the skin or joints.
- **Disease-modifying anti-rheumatic drugs (DMARDs)**, which include Rheumatrex (methotrexate) and Azulfidine (sulfasalazine).
- **Statins**, are often prescribed for people with diabetes and can reduce inflammation by reducing LDL (bad) cholesterol. Conversely, they can increase blood sugar levels.

## Lifestyle

If you have Type 2 diabetes or are at risk of Type 2 diabetes, it is highly likely that you will have been given advice on the role of lifestyle in helping you to manage the condition.

Not only can adopting a healthier lifestyle help slow or even prevent the progression of the condition but it can also help reduce chronic inflammation that may be accompanying the condition. Steps include:

- **Try including “anti-inflammatory” foods** in your diet such as vegetables, whole fruits, whole grains, fatty fish, nuts, seeds, and healthy oils such as olive oil. Limiting refined carbohydrate, foods, such as white bread, white pasta, white rice, sugary drinks, and foods that contain refined sugars will also help.
- **Focus on foods that are rich in polyphenols.** These are types of antioxidants that can lower inflammation. They are found in berries, cherries, plums, red grapes, onions, spinach, kale, walnuts, almonds, and legumes (beans). Tea, coffee, and red wine are beverages that contain phenols but stay within recommended limits.
- **Cut back on red and processed meats.** These meats are high in saturated fat, which can increase inflammation.
- **Try cooking with anti-inflammatory herbs and spices:** Turmeric, ginger, cinnamon, cumin, cloves, basil, marjoram, oregano, rosemary, parsley, and peppermint all have anti-inflammatory properties.
- **Try making physical activity a regular part of your day.** Physical activity helps the body to release anti-inflammatory chemicals and also reduces insulin resistance.
- **Going easy on alcohol.** Small amounts of alcohol (such as red wine) may be helpful, but overdoing it can worsen inflammation
- **Stopping smoking.** Nicotine in tobacco activates certain white blood cells, called neutrophils, that release molecules that can increase inflammation.
- **Reducing stress.** Stress is a part of life for most of us, but constant stress can eventually lead to chronic inflammation. Finding ways to reduce stress can help you turn off that stress response.
- **Certain supplements,** such as turmeric, garlic, ginger, lipoic acid, and omega-3 fatty acids are often promoted as being anti-inflammatory. However, while they could be beneficial you should talk with your health care professional before taking any type of dietary supplement.

## Exercise to Fight Diabetes and Inflammation

Walking 30 minutes a day on most days has

been proved to help prevent Type 2 diabetes for people at high risk. Part of exercise's power for diabetes prevention may come from its anti-inflammatory effects. Physical activity releases a flood of anti-inflammatory chemicals into the body. Exercise also causes the body's cells, especially muscle cells, to dramatically increase their sensitivity to insulin.

The increased insulin sensitivity from exercise also helps reduce chronic inflammation. The benefits are seen even with moderate exercise, like regular walking.

## Metformin – a Type 2 Anti-inflammatory?

Earlier in this article we mentioned cytokines and their association with inflammation and Type 2 diabetes. Recent research from Valencia has suggested that metformin can reduce cytokine levels because of the way in which it works with mitochondria. Mitochondria are known as organelles. Sometimes mitochondria are referred to as the “powerhouses of the cell” because they help turn the energy contained in foods into energy that body can utilize. It's estimated that mitochondria produce 90% of the energy required by the human body. Sometimes, however, mitochondria fail to do their work properly, resulting in a condition called mitochondrial dysfunction, which is known to contribute to Type 2 diabetes. The research showed that the mitochondrial function of those participants using metformin improved, compared to those not using it. More specifically the metformin-treated patients showed “significantly lower” levels of two cytokines known as TNF- $\alpha$  and IL-6, which are both substances that promote the inflammation that appear to promote diabetes. The researchers said “Our findings have significant clinical implications, as they back the idea that metformin plays a key role in modulating the inflammation that takes place in patients with Type 2 diabetes.”

We hope this article has helped to clarify what is meant by inflammation in relation to Type 2 diabetes. Although it is a topic that is discussed regularly in research/medical forums, it is rarely something that is talked about in relation to daily diabetes management and it is perhaps something to which we should give consideration in the long-term progression of the condition and its potential complications.



# Succeeding with Exercise

One of the pieces of advice that nearly everyone is given when they are first diagnosed with Type 2 diabetes is to do more exercise. It's good advice – no one would dispute that but it isn't as easy as it sounds.

There are lots of different things to consider and decisions to make and although many of us set out with the best of intentions, many of us also set ourselves up to fail without realising it. Be honest - how many of us have the exercise bike in the spare room that now doubles as a clothes horse?

Making the right decisions about our fitness goals at the outset can dramatically improve our chances of succeeding in following the advice we were so readily given at diagnosis. There are five principles underlying these decisions and these are often referred to as **SMART** principles. **SMART** stands for:

**Specific** – This means setting goals with a specific value. So, instead of setting a goal to “exercise more”, make the goal to “exercise 3 times a week”. Being specific about your goals in this way removes any ambiguity regarding whether you hit your goals.

**Measurable** – This is in line with being specific. Your goal should have a numeric value that you can measure. For example, “losing 10 pounds in 12 weeks” is a measurable goal that you can track and does not leave much room for interpretation as to whether you met your goal.

**Achievable** – The third SMART criteria you must consider is whether the goal is achievable. An achievable goal will always be relative to your current fitness level.

You should set your goals based on where you are now. Setting attainable goals is as much an art as it is a science. You must ensure your goals are not so hard as to guarantee failure, yet not so easy that you do not get any real satisfaction or benefit upon reaching them.

**Relevant** – Your goals should be relevant to both your health needs and overall interests. For example, if you're dealing with high blood pressure along with your diabetes, focusing on a specific, weekly, aerobic exercise goal, for example involving walking or swimming, is more relevant than heavy weight lifting.

**Time-framed** – The last of the SMART principles means that there is a specific time period within which you plan to achieve your goal. Although there is no hard-and-fast rule as to how long your time frame should be, it should not be too short, be unachievable or too long so as to be unspecific. Most SMART goals have a time-frame of between 1 and 3 months.

## **PICKING THE RIGHT ACTIVITY TO MEET YOUR FITNESS GOALS**

Many of us may not have taken on an exercise regime and the thought of setting foot in a gym full of super-fit people may fill us with dread. In reality there are plenty of exercises we can do without necessarily going to a gym or fitness club. There are lots of different exercises that we can do that are suitable for people with different levels of ability.

To start with there are a few things that we can do that will help us prepare to take up exercise and make us feel physically ready to start exercising.



## Improving your balance

It's hard to feel comfortable doing any type of exercise when you feel wobbly doing it. This means that improving your balance can help you get fit in other ways, as well. To improve your balance try standing on one foot while standing near the kitchen counter, so that you can hold on if you feel unstable. Build up to holding this pose for 10–20 seconds on each foot. It can help to focus your eyes on an object in the distance while you try to balance.

You can also try walking as if you were on a tightrope, putting one foot directly in front of the other. Try doing this across a room. If you need to, extend your arms out like a tightrope-walker to help keep your balance.

## Reducing stiffness

Stiffness can hamper both regular daily activities and attempts at exercising. The best way to decrease stiffness is to stretch properly. While many people have been taught that stretching should precede exercise, that's not so, stretches should be done when your muscles are warm. A few minutes of walking with your arms pumping will do the trick to warm them up.

While stretching, don't bounce, bob or jerk. Slowly and gently move into a position that puts gentle pressure on the muscle and hold the position for 20 seconds. Then relax and repeat; you may be able to stretch a little farther the second time, but don't force it. Stretch each muscle group or whatever body parts feel like they need to be stretched.

## Increasing flexibility

If you lose flexibility, you lose some of the range of motion in your joints. To increase your flexibility for everyday movements, incorporate stretching and strengthening exercises that mimic activities you find difficult. For example, if bending at the waist to pick up a pencil from the floor is hard, try exercises that work the hamstrings, such as slowly reaching for your toes while seated, ideally on the ground, with your legs extended. Hold for several seconds, relax and then repeat. Be patient - increasing your flexibility won't happen overnight but it will happen.

## Building strength

Age in and of itself will steal strength from us. If you can get stronger it will help with your exercise regime.

You could try calisthenics — those old gym-class standards that include squats, calf raises, and push-ups can also help you build strength. However, remember to go "low and slow" when beginning. At first, you may only be able to do knee-assisted push-ups but in a few months, you can maybe build this up to 10 push-ups from your toes. Remember to be careful and don't hurt yourself

## SOME EXERCISE IDEAS FOR PEOPLE WITH DIABETES

**Brisk Walking** - Walking is easy for many people to do. All you need is a good pair of shoes and somewhere to go. Walking is probably one of the most prescribed activities for people with Type 2 diabetes. Brisk walking done at a pace that raises the heart rate is considered a moderate-intensity exercise. Walking at a quicker pace for 30 minutes per day, five days per week, will help you reach the recommended weekly goal of 150 minutes of moderate-intensity exercise.

**Tai Chi** - Reduces stress and improves balance. Tai chi is an ancient Chinese tradition where participants flow through a series of movements performed in a slow and relaxed manner along with deep breathing. An analysis of 14 studies, published in July 2018 in the Journal of Diabetes Research, concluded that tai chi is an effective way for people with Type 2 diabetes to manage their blood glucose and HbA1c levels. Tai chi is ideal for people with diabetes because it provides fitness and stress reduction in one. Because of the nature of the movements tai chi also improves balance and may reduce the impact of nerve damage or neuropathy

**Weight Training** - Is good for maintaining muscle. This is important for those with Type 2 diabetes. If you lose muscle mass, you can have a lot harder time maintaining your blood sugar. Weight training can be challenging and it may be better to get

professional advice to start this type of exercise safely and to make it as effective as possible

**Yoga** - Reduces stress for blood sugar control. Like tai chi, research shows that if you have diabetes, yoga can help reduce stress and manage the condition, according to a review published in September 2018 in *Endocrinology and Metabolism*. When stress levels go higher, so can your blood sugar levels, yoga can help minimise this. One of the advantages of yoga as an exercise is that you can do it as often as you like

**Swimming** - Is a low-impact exercise that feels good. Swimming is another aerobic exercise — and an ideal one for people with Type 2 diabetes because it doesn't put pressure on your joints.

**Stationary Bicycling** - Is a convenient way to burn calories. Bicycling is also a form of aerobic exercise, one that makes your heart stronger and your lungs function better, and is a calorie burner to boot.

Just riding a few times per week as a casual mode of transportation was found to reduce the risk of obesity, high blood pressure, and triglyceride levels, according to a study published in March 2018 in the *American Journal of Health Promotion*.

## CHAIR EXERCISE

If you have difficulty standing or walking it doesn't mean exercise is out of the question. If you want to remain physically active then chair exercises could be just the thing for you. These gentle exercises will help improve your mobility and can help prevent falls. Choose a solid, stable chair without arms, that allows you to sit with your feet flat on the floor and your knees at right angles.

Wear some loose, comfortable clothing and keep some water handy. Build up slowly and aim to gradually increase the number of repetitions of each exercise over time. Try to do the exercises at least twice a week.

**Chest stretch.** This stretch is good for posture.



**A.** Sit upright and away from the back of the chair. Pull your shoulders back and down. Extend your arms out to the side.

**B.** Gently push your chest forward and up until you feel a stretch across your chest.

Hold for 5 to 10 seconds and repeat 5 times.

**Upper body twist.** This stretch will develop and maintain flexibility in the upper back.



**A.** Sit upright with your feet flat on the floor, cross your arms and reach for your shoulders.

**B.** Without moving your hips, turn your upper body to the left as far as is comfortable. Hold for 5 seconds.

**C.** Repeat on the right side.

Repeat for 5 times on each side.



**Hip marching.** This exercise will strengthen hips and thighs, and improve flexibility.



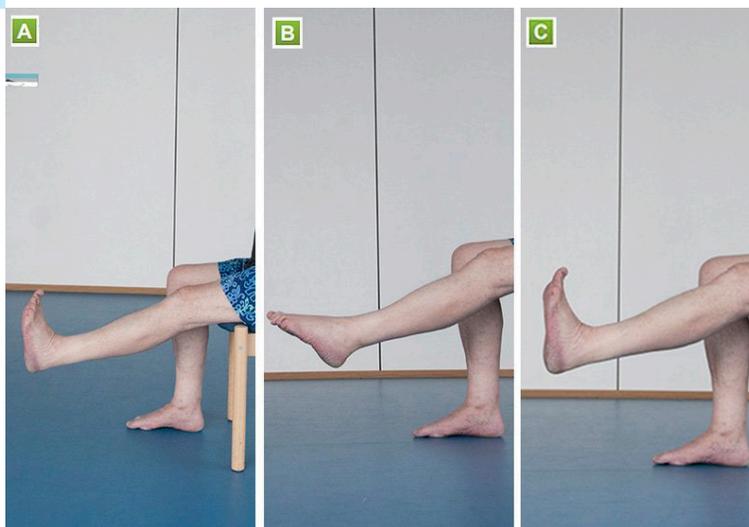
**A.** Sit upright and do not lean on the back of the chair. Hold on to the side of the chair.

**B.** Lift your left leg with your knee bent as far as is comfortable. Place your foot back down with control.

**C.** Repeat with the right leg.

Do 5 lifts with each leg.

**Ankle stretch.** This stretch will improve flexibility and lower the risk of developing a blood clot.



**A.** Sit upright, hold on to the side of the chair and straighten your left leg with your foot off the floor.

**B.** With your leg straight and raised, point your toes away from you.

**C.** Point your toes back towards you.

Try 2 sets of 5 stretches with each foot.

**Arm raises.** This exercise builds shoulder strength.



**A.** Sit upright with your arms by your sides.

**B.** With palms forwards, raise both arms out and to the side, and up as far as is comfortable.

**C.** Return to the starting position.

Keep your shoulders down and arms straight throughout. Breathe out as you raise your arms and breathe in as you lower them. Repeat 5 times.

**Neck rotation** This stretch is good for improving neck mobility and flexibility.



**A.** Sit upright with your shoulders down. Look straight ahead.

**B.** Slowly turn your head towards your left shoulder as far as is comfortable. Hold for 5 seconds and return to the starting position.

**C.** Repeat on the right.

Do 3 rotations on each side.



**Neck stretch** This stretch is good for loosening tight neck muscles.



This stretch is good for loosening tight neck muscles.

**C.** Sitting upright, look straight ahead and hold your left shoulder down with your right hand.

**B.** Slowly tilt your head to the right while holding your shoulder down.

**C.** Repeat on the opposite side. Hold each stretch for 5 seconds and repeat 3 times on each side.

### WAYS TO FIT MORE FITNESS INTO YOUR DAY

Here are a few suggestions of how you can fit more exercise into your day. There are probably many more...

**Garden to Burn Calories and Benefit Your Brain** - making your garden beautiful by digging, weeding, raking, mowing, and sowing seeds can burn 100 calories in 15 minutes.

Another bonus benefit; a 44-year study published in March 2019 in the journal *Neurology* linked gardening as little as four hours a week to as much as a 56 percent lower risk of dementia.

**Shine Up Your Car to Fit in Some Cardio** - Washing and waxing your car vigorously for 15 minutes is one of many activities that will burn about 80 calories and get your heart rate up. Stretching and raising your calves to scrub the roof of the car and squatting to wash the tires can make this a real workout.

**Push a Pram: It Helps New Parents (and Grandparents) Shape Up** - Taking your little one out for a walk allows for some bonding time and is a great way to get into shape. Pushing a stroller for 30 minutes burns about 130 calories, which can help new parents and grandparents stay healthy and active.

**Listen to the Beat to Get You Off Your Feet** - If you're looking to release stress, lift your mood, improve your memory, and get a whole-body workout, crank up some favourite music and dance like nobody's watching. Minute for minute, all that energetic twisting and swirling is an aerobic exercise that burns at least 200 calories in 30 minutes.

**Turn Any Set of Stairs into a Fitness Machine** - If you set aside just 15 minutes of your day to go up and down any set of steps, you can blast more than 100 calories. Taking the stairs is also good for balance and coordination. Not to mention, it's free.

### STAY SAFE WHEN EXERCISING!

Here are some important things to remember to make sure you stay safe when exercising:

- **Talk to your Health Professional. Always** talk to your health professional before you start to undertake a fitness or exercise program to make sure it is safe for you to do so and that the exercise you are undertaking is the best for your health.
- **If you test, test your blood sugar levels before you start exercising.** If your blood sugar levels are low then have a snack before exercising. It may well be worth testing again after as well, that way you can see the impact exercising has on your blood sugar levels.
- **Don't skip water breaks.** Dehydration, which people with diabetes are prone to anyway, will cause your blood sugar levels to rise. Avoid sports drinks, which are packed with sugar and carbohydrates, and drink water instead. Aim to drink a glass of water every 15 to 20 minutes or whenever you are thirsty.
- **Be prepared.** Don't forget to take your meter, rapid-acting insulin if you use it and snack to provide you with some carbohydrate in case you need it.

- **Wear appropriate footwear.** Wear breathable socks and shoes that fit well to keep the feet protected. Wearing shoes that are comfortable and fit well is not only going to help you be more physically active but will protect you from potentially getting a cut or a scrape that doesn't heal.
- **Don't ignore what your body is telling you.** It's important to listen to your body during a workout. If you feel dizzy, stop, recover, and start again when you're feeling better.

## IDDT Conference 'Changing Times' 29 October 2022

This year's conference was well attended and many attendees used the opportunity to network with others living with diabetes, sharing stories, online resources and forums, and arranging to meet up. For those who were unable to attend, here's a brief summary of what took place.

### Ageing with Diabetes Professor Alan Sinclair of the Foundation for Diabetes Research in Older People

The number of older people with diabetes is rising globally. Currently there are 3.8 million people with diabetes in England. Nearly 1 million have diabetes but are undiagnosed. 90% have Type 2 diabetes. In 2020 the number with Type 1 diabetes in England was 218,670.

- It is now clear that Type 1 can present at any age with an unexplained fall, change in personality, fatigue or with a memory problem.
- People over 70 do not have the same symptoms as younger people and may present
- Type 2 in older adults is often missed for up to 9 years by which time complications have set in.
- The risk of hypos increases with age – and not just in those aiming for "tight control".
- In older people it is better to aim for a stable level of blood glucose rather than a lower HbA1c.
- The prevalence of diabetes is even higher in care homes and mental health facilities than in the general population.

### Frailty and dementia are complications of diabetes.

- Frailty can be reversed. Diabetes accelerates the loss of muscle tissue.



- This risk can be lessened with regular exercise and good nutrition.
- Frailty is marked by weight loss, exhaustion, slow walking, low grip strength, and low physical activity.
- Frailty should be screened for in all people over 65 as it is a risk factor for falls, mobility, length of hospital admission and death.

Older people with diabetes + frailty + Covid had very high mortality rates. Unfortunately, European guidelines to administer dexamethasone and oxygen were not picked up in the UK.

Research on diabetes in older people indicates that the way forward is with good screening and individualised diabetes care.

### Better Services, Better Care? Feedback from 2021 – Jenny Hirst

Delegates at last year's conference asked

the Trust if it could lobby to improve post-code lottery in diabetes care. With great regret, Jenny had to report that it had not been possible. Changes in Government and the move from CCGs to Integrated Care Systems/Boards have meant there is no one identifiable national figure and the new local boards have not been in place for long enough to appoint diabetes leads. It could be another two years, based on past experience, until things have settled.

Another issue is that NICE issues guidelines, which are not mandatory, so even if a patient knows what care they are supposed to receive, decisions taken at a local level may be different.

We were advised to familiarise ourselves using the '9 Key Checks' leaflets to request the services we are supposed to be getting. Members of the audience also suggested turning to social media. A local tv or radio station may pick up on social media posts and put pressure on service providers. It was also suggested that delegates might volunteer to be a patient representative on a local Integrated Care Board.

### Delegates had a choice of discussion groups to attend before lunch.

#### Management and Medication led by Professor Alan Sinclair

Prof Sinclair emphasised the importance of physical activity to reduce insulin resistance as well as to keep muscle mass. If someone finds it painful to walk (calf pain) it could be claudication and should be medically assessed – but keep walking even if painful. Resistance exercises, like using full bottles as weights, can help reverse frailty. Aerobic exercise can delay cognitive impairment. The British Heart Foundation was recommended.

#### Pros and Cons of technology led by Dr Gary Adams

The focus was on continuous glucose monitors and pumps. Positives were identified as no finger pricking, accurate results, improvements in control, quality of life, better health, the reassurance of notifications for hypos and more time spent with blood glucose in range. Some cons were identified as not having enough education to use technology optimally, the risk of losing one's foundation knowledge about diabetes and its management, being over-

reliant on technology, doubtful reliability, anxiety about travel/loss of devices, expense if not NHS funded, risk of infection, and becoming obsessive about blood glucose range at the expense of a relaxed life.

#### Getting the most from the NHS led by Anne Aubin

Attendees bemoaned the breakdown of the health and care system and struggling to get care, from getting past a GP receptionist, to obtaining a preferred pump.

With regard to getting and making best use of an appointment, some people said they found it easier to go into the GP surgery and make a booking, as it is so hard to get through by phone, or past telephone triage. The Expert Patient Programme and Shared Decision-Making guidelines recommend PART.

- 'P' is Preparing for the appointment by identifying what is most important to you, and taking along an advocate or carer if we struggle to get our point across.
- 'A' stands for Ask – it is recommended we ask three questions: What are my treatment options? What are the Pros and Cons of each? Where can I get support with whichever option I choose?
- 'R' is Repeat – telling the professional what you believe the plan to be so there are no misassumptions.
- 'T' is for having a clear Target outcome.



The benefits of complaining in writing if we are unsatisfied were discussed. There is a duty to respond to complaints. If a complaint is not adequately addressed, copying the complaint to the practice Senior Partner, to PALS, to the ICB, the GMC, the CQC, one's MP, or the press, may



bring results. We also looked at how to be an effective presence in groups/on committees, and the benefits of being part of an online support group such as [GBDoc - Diabetes, Peer Support, Information Service](#). One's personal expertise with diabetes can be shared during an appointment, on social media and working with a patient participation group.

### Carers group led by John Birkbeck

Those living with someone with Type 1 Or Type 2 diabetes attended and found the group a valuable place to freely discuss the impact of living with someone with diabetes and they shared struggles and achievements. It can be easy to feel alone and knowing that other carers can have similar experiences – or worse – makes it easier to keep going.

### Three keynote addresses.

Over the course of the day there were three keynote addresses. These were:

- **The Latest on the Freestyle Libre – Jane Cheetham, Abbott Laboratories**
- **Proteins, Fat, Vitamins, Minerals – and Carbs – Dr Mabel Blades**
- **Newer Treatments for Type 1 and Type 2 Diabetes – Dr Gary Adams**

If you would like further details about the content of these addresses then please contact us using the details given at the end of this newsletter.

### Close of the Day

Jenny Hirst closed the conference by thanking all our members and supporters for their generous donations of insulin, medication and other supplies, especially knitted toys, hats, gloves, and scarves meters and money for our efforts in Ukraine. Every penny is being spent where it is most needed.

**The staff and trustees very much look forward to seeing you in 2023.**

## BITS AND PIECES

### Vitamin D Status and the Risk of Diabetic Retinopathy

A study published last year has shown that vitamin D deficiency was significantly associated with an increased risk of sight-threatening diabetic retinopathy (STDR). However, no association was seen between vitamin D deficiency and non-sight-threatening diabetic retinopathy (NSTDR) risk. Researchers concluded that these findings suggest that vitamin D deficiency should be managed appropriately and promptly to reduce the risk of blindness in patients with diabetes.

**(Vinrod Rane, BS Pharm. Vitamin D Status and the Risk of Diabetic Retinopathy - Medscape - 20 June 2022.)**

### Antidepressant Fluoxetine has shown promise as a preferred treatment in people with Type 2 diabetes and depression.

The results of the study showed that fluoxetine promotes insulin secretion in beta-cells and plays a significant role in blood glucose control. As such it shows promise as a preferred anti-depressant treatment for people who

anti-depressant treatment for people who have both depression and Type 2 diabetes. **(Diabetes, Obesity and Metabolism, Volume24, Issue10, October 2022, pages 2038-2050)**

### Report on the comparative effect of metformin versus sulfonylureas with Alzheimer's disease (AD) and Parkinson's disease (PD) risk in US patients over 50 with type 2 diabetes mellitus

Compared to people taking sulfonylureas, metformin users were associated with a lower risk of all-cause dementia, Alzheimer's Disease and Vascular Dementia but not with Parkinson's Disease. Age and renal function modified risk reduction.

The findings support the hypothesis that metformin provides more neuroprotection for dementia than sulfonylureas but not for PD, but further work is required to assess causality (BMJ)

**<https://drc.bmj.com/content/10/5/e003036>**



### While we are talking about it:

#### Thiazolidinones also may reduce dementia

Researchers in the US have suggested that patients with Type 2 diabetes who were taking drugs from a family called Thiazolidinones had a lower risk of dementia than those on metformin – the most common medication for Type 2 diabetes. The only Thiazolidinone currently licensed in the UK is Pioglitazone. (BMJ Open, BMJ Open Diabetes and Care). Dr James Connell, Head of Translational Science at Alzheimer's Research UK, said: "As well as tackling diabetes and maintaining a healthy blood pressure, the best current evidence suggests that not smoking, drinking within the recommended guidelines, staying mentally and physically active, eating a balanced diet, and keeping cholesterol levels in check can all help to keep our brains healthy as we age." Good advice for us all.

<https://app.dodsinformation.com/ui/app/index.html#/document/view/758c121ccde04ef49daa4474ebf5ee80>

#### Study shows that replacing mealtime insulin with a GLP-1 RA improves blood glucose control and promotes weight loss.

The study showed that people with Type 2 diabetes that were managing their diabetes with a basal-bolus (BB) insulin regime benefitted from replacing their bolus insulin with a GLP-1 RA, (commonly known as 'flozins'), with improved glycaemic control, HbA1c and weight loss, sustained over 24 months. Researchers concluded "Replacing prandial insulin with GLP-1 RA is a valuable strategy to simplify the BB insulin regimen while improving glycaemic control and promoting weight loss in subjects with T2D" (Acta Diabetologica)

#### Approval of Tirzepatide (Mounjaro) by MHRA

The Medicines and Healthcare products Regulatory Agency (MHRA) has granted marketing authorisation for tirzepatide, a once weekly medication, for people with Type 2 diabetes. Tirzepatide (Mounjaro) is a first-in-class medication that involves both Glucagon-like peptide-1 (GLP-1) and glucose-dependent insulinotropic polypeptide (GIP) in blood sugar control.

#### Weight loss plus normal BMI may result in Type 2 diabetes remission

Research has shown that losing 10% or more of weight may increase the odds of diabetes

remission among patients with Type 2 diabetes and a body mass index of 21 to 27 kg/m<sup>2</sup>. The researchers suggest that a mechanism involved in reducing the fat in the liver and pancreas may be responsible for the remission. (Presented at the European Association for the Study of Diabetes, 2022)

#### Two classes of Type 2 medications have been associated with a superior reduced risk of COPD

In this population-based study, GLP-1 RAs and SGLT-2 inhibitors were associated with a reduced risk of severe exacerbations compared with sulphonylureas in patients with chronic obstructive pulmonary disease and Type 2 diabetes. DPP-4 inhibitors were not clearly associated with a decreased risk of chronic obstructive pulmonary disease exacerbations.

#### Combining Sulphonylureas and Beta-Blockers Increases Severe Hypoglycaemia Risk

Research has shown that in patients with Type 2 diabetes (T2D), the combined use of sulphonylureas and beta-blockers was associated with an increased risk of severe hypoglycaemia compared with the use of sulphonylureas alone. Sulphonylureas are an established group of drugs used to treat Type 2 diabetes and include Gliclazide, Glipizide and Glimepiride. Beta-blockers are used to treat cardiovascular conditions and include Atenolol, Carvedilol and Propranolol. Researchers advised that patients with T2D and hypertension or heart failure should exercise caution when using sulphonylureas and beta-blockers concurrently and consider the use of alternative antidiabetic or cardiovascular drugs, especially if the baseline risk of hypoglycaemia is elevated. If you are concerned then speak to your health professional.

#### Metformin may cut knee replacement risk in Type 2 diabetes

A published study has found that the incidence of total knee replacement over four years was 19% lower among patients with Type 2 diabetes who were regular metformin users, compared with non-users. The researchers said that in addition to reducing glucose levels, metformin also modulates inflammatory and metabolic factors, leading to reduced inflammation and plasma lipid levels. (Scientific Reports, September 2022)



## Just to remind you....

### 2023 Diabetes Everyday Diaries still available!

For the last two years we have published our Everyday Diary for anyone who lives with diabetes, whether you have diabetes, your partner has diabetes or your child has diabetes. This proved very popular, so we have published another Diary for 2023. We still have some copies left and these are available for the reduced price of £3.99

### Christmas cards

We would like to thank everyone who bought Christmas cards from us in 2022. The postal strike meant that we didn't sell as many as usual because we didn't receive postal requests and we couldn't send them out either! So, we are selling off 2022 cards for **£2.50** per pack of 10 with no additional charge for p&p which could help you to save you money for Christmas 2023! Just give us a call on 01604 622837 or order online by visiting our shop on the website: <https://www.iddt.org/shop>  
If you would like to order any of the designs below, or the Diabetes Diary, then please contact IDDT as above.

				
Silent Night Holy Night	Victorian Partridge	Christmas Veggies	Blue Trees	Santa and Reindeer

### A Date for your Diary

Just an early warning that our AGM and Event for this year will be on Saturday, 30th September and will be held at our usual venue, the Kettering Park Hotel and Spa. As usual, the day will be a mixture of speakers, group discussions and of course, an opportunity to meet other people who live with diabetes. We hope that you will put this date in your diary and will join us on the day.

### 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 OCTOBER 2022 DRAW ARE:

- 1st prize of £569.76 goes to Pearl from Yeovil
- 2nd prize of £427.32 goes to Anon from Cardiff
- 3rd prize of £282.88 goes to Jeremy from Colchester
- 4th prize of £142.44 goes to Anon from Dorking

### WINNERS OF THE NOVEMBER 2022 DRAW ARE:

- 1st prize of £500.40 goes to Geoff from Sidford
- 2nd prize of £375.50 goes to Anon from Nottingham
- 3rd prize of £250.20 goes to Anon from Bradford
- 4th prize of £125.10 goes to Margaret from Wolverhampton

### WINNERS OF THE DECEMBER 2022 DRAW ARE:

- 1st prize of £498.72 goes to Veronica from Glasgow
- 2nd prize of £374.04 goes to John from Nottingham
- 3rd prize of £249.36 goes to Anon from Dorking
- 4th prize of £124.68 goes to Anon from Solihull

Note: The winners of the draws for January, February and March 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)