



Your Guide to Living with Type 2 Diabetes



ENGLISH

Objective of these guidelines

These guidelines are designed with the aim of improving outcomes of patients with Diabetes.

These guidelines are not to replace clinical decisions but are designed to assist in the management of your diabetes.

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What is diabetes?



Diabetes is a condition that causes a person's blood sugar (glucose) level to become too high if left untreated.

- Insulin is a hormone produced by the pancreas in the body.
- Hormones work like keys opening doors to different functions in the body.
- Insulin is a hormone that acts like a key that opens the door for glucose to enter cells in the body.
- Glucose is used as a source of fuel by the body.

Type 1 vs type 2 diabetes

Type 1 diabetes occurs when the pancreas has stopped producing insulin. The exact reason this happens is unknown.

When someone has type 2 diabetes, the pancreas still produces some insulin but:

- the pancreas is not producing enough insulin to meet your body's need; or
- the insulin that is being produced is not working very well. (This is also known as insulin resistance)

Daily blood glucose targets

Tests that you can do

Daily blood glucose if required on a glucometer.

Your glucose targets are individual to you, however, below are some general guidelines:

On your meter:

- Aim to keep Pre meal 4-6.0mmol/L.
- Aim to keep 2 hours post meal less than 7.8mmol/L.

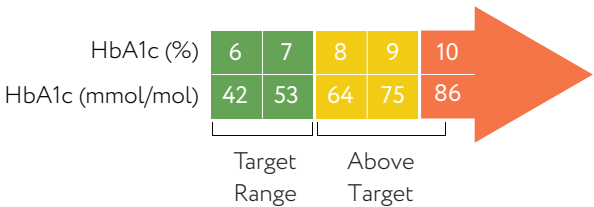
Tests that your doctor, or diabetes team can do

Blood tests will be done approximately every 6 months. These tests will be sent to the laboratory to measure your blood glucose, liver, kidney function & cholesterol levels.

The laboratory can also measure your average diabetes control over the past 3 months doing a test called a HbA1c.

For most people, the target HbA1c is 53mmols/mol or less.

Examples of HbA1c target in the image below:



You may be given a target based on your individual needs

General advice for people with diabetes

- Always test your blood glucose as advised by your doctor or diabetes team.
- Do not stop your insulin or tablets unless told to do so by your doctor or team.
- If you are thirsty, have weight loss or continuous high blood sugar readings then you should speak to your doctor or diabetes team.
- Please attend all your diabetes appointments including retinal screening.
- If you are unable to attend your appointment, please phone in advance to cancel & reschedule the date.



Preparing for a diabetes appointment



Please bring with you

- An up to date list of medication.
- Your blood glucose meter.
- Insulin pens if appropriate.
- Ensure that recent blood tests have been done 2 weeks prior to appointment.

Treatment goals



Lifestyle changes should be the first-line therapy: healthy eating and physical activity. Medications may be added by your doctor or nurse. You may be referred to a dietitian.

Physical activity

- Aim to be physically active or do some form of movement every day.
- At least 150 minutes of moderate intensity physical activity per week is recommended for good health. 10,000 steps per day is a good guide.
- Reduce sitting time.
- Your doctor or nurse may refer you to an exercise programme.

Diet

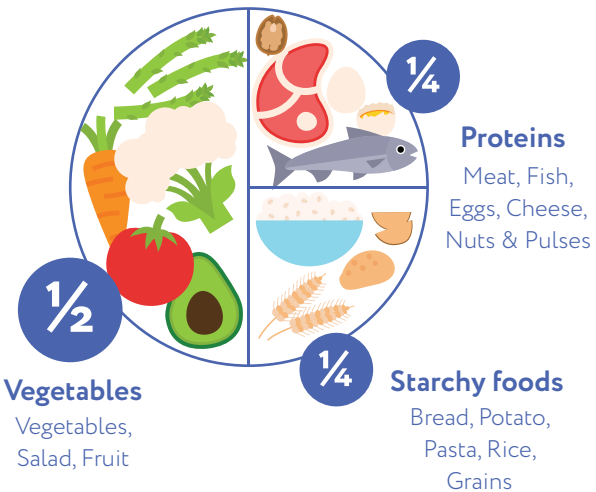
Eat regular meals

Aim to eat breakfast, lunch, and dinner every day, with 1-2 healthy snacks between meals as needed.

Healthy plate

Eat a wide range of nourishing foods. Use the Healthy Plate model to plan your meals and how much of the different food types to choose.

A Healthy Plate



Eat plenty of vegetables and fruit.
Include vegetables at every meal and
eat fruit and vegetables as snacks.

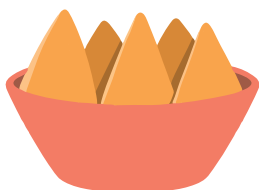
Limit foods that are high in sugar, fat, or salt e.g. chocolate, biscuits, cakes and buns, sweets, crisps and salted snacks, sugary drinks, ice-cream, jams/marmalade, tarts, and dessert foods.

Limit these foods to 1-2 per week.

Carbohydrates

Carbohydrate is a nutrient that has a direct effect on blood sugar levels.

Carbohydrate is found in both starchy and sugary foods. The body breaks these foods down and turns them into sugar in our blood. Your body uses this sugar for energy.



Carbohydrate foods include:

STARCHY CARBOHYDRATES

- porridge oats and breakfast cereals
- breads – wholegrain, wholemeal, white, soda, pita, wraps, rolls, chapati, roti
- potatoes, and potato products such as chips, wedges, instant mash, and crisps
- rice
- noodles
- pasta, couscous
- foods made with flour such as pizza bases, quiches, pies, crackers, rice cakes
- baked goods e.g. scones, croissants



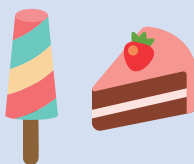
NATURAL SUGAR

- fruit and fruit juices
- milk
- yogurt



ADDED SUGAR

- sugar
- jams, marmalades
- honey and syrups
- sugary drinks
- sweets, jellies
- dessert foods e.g. jelly, ice cream, sugary tarts
- baked goods with added sugar e.g. cakes and buns
- chocolate, biscuits

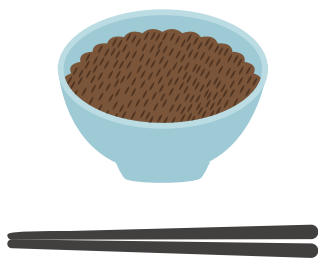


Your blood sugar is directly affected by the AMOUNT of carbohydrate you eat. The more carbohydrate you eat and drink, the higher your blood glucose.

It is important for people with type 2 diabetes to consider:

- What carbohydrate food are you eating?
- How much carbohydrate do you eat during the day, and what are your portion sizes?
- Would you benefit from reducing the amount of carbohydrate you eat and drink?

Choose high fibre varieties of starchy carbohydrates e.g. wholegrain bread, brown rice, high fibre breakfast cereals



Managing your weight

If you are overweight, any amount of weight loss, however small, can help in looking after diabetes.

Start with a target of 5-10% e.g. for someone of 100kgs (16stone), this would be 5-10kgs (10lbs – 1.5stone).

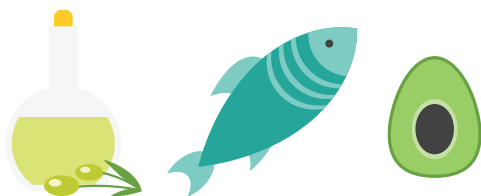
To start:

- Look at what changes you could make to your diet - consider writing down what you eat and drink for a day or two to help identify possible changes you could make.
- Consider weighing yourself once a week to keep you focused and monitor your progress.
- There is no quick way to lose weight. A steady loss of 0.5 - 1 kg (1-2lbs) a week is the safest and the most effective way to lose weight and keep it off.
- Be more active and sit less - being active at any weight brings major benefits.

Fat

Too much saturated fat can increase the amount of cholesterol in the blood, which can increase the risk of developing heart disease.

- Replace saturated fats like butter, lard, and ghee with small amounts of mono (for example olive oil, rapeseed oil, almonds, unsalted cashews and avocado) and polyunsaturated fats (including sunflower oil and vegetable oil, walnuts, sunflower seeds, and oily fish).
- Cut down on foods containing trans fats which is found in fried foods, takeaways, snacks like biscuits, cakes, pastries, or hard margarines.
- Eat oily fish twice a week such as salmon, sardines, mackerel, and herring.



All fats are high in calories, so it is important to remember even the unsaturated fats should only be used in small amounts.

Salt

Eating too much salt can increase the risk of developing high blood pressure. Avoid adding salt to your meals, and avoid salty foods such as salty meats, salted foods and snacks, takeaways, and ready meals.

Limit alcohol

People with diabetes are recommended to limit their alcohol intake.

The recommended low-risk guidelines are to drink less than 17 standard* drinks a week for men, and less than 11 standard drinks a week for women, with 2-3 alcohol free days.

Drinks should be spread out over the week.

Drink no more than 6 standard drinks on any 1 occasion (e.g. 3 pints)

* A standard drink = ½ pint of beer/stout/cider, small glass of wine, single measure of spirits

People with diabetes however should also consider the following:

- Alcohol contains a lot of calories and can contribute to weight gain. If you are trying to lose weight, consider reducing your alcohol intake.
- Some alcohol drinks contain significant amounts of carbohydrates e.g. beer, cider, stout, cocktails, sweet wines, and sugary mixers.
- People with diabetes taking insulin or certain diabetes tablets are at risk of low blood sugar after drinking alcohol. Discuss with your doctor or diabetes professional.

Hypoglycaemia



What are hypos?

Hypoglycaemia or “a hypo” are when your blood glucose (sugar) levels in the blood falls to or below 4.0 mmol/L, whether you feel it or not.

What causes hypos?

If you are taking Insulin or certain medications such as a sulphonylureas, you may experience a Hypo because of taking too much insulin, you may have missed or delayed a meal, not eating enough carbohydrate food (bread, pasta, cereals), have taken alcohol, recreational drugs, exercising more than usual, hot weather, breastfeeding or vomiting just after a meal. Sometimes there may be no obvious reason.

What are the symptoms?

- Trembling, sweating, hunger, faint, cold, tired, irritable, blurred vision, confused, or having difficulty concentrating. Hypo symptoms can be different for everyone.
- Symptoms of a severe hypo can include, slurred speech, glazed eyes, poor co-ordination, inappropriate behaviour, appearance of drunk behaviour when you are not, seizures and loss of consciousness.
- Symptoms may be recognised by your family, friends or work colleagues so talk to them about hypos and how they can help.



How to treat a hypo?

Treatment: 15 g of quick acting carbohydrate

Lift Glucojuice 60 ml **OR** 5-6 Dextro-energy tablets **OR** Lucozade™ tablets **OR** 200 ml Lucozade™ (Lucozade now has 50% less carbohydrate) **OR** 150 ml Coke™ or 150-200 ml Fruit Juice



Advised to check your blood glucose after 5-10 minutes.

If it has not been corrected, you should be advised to take another hypo treatment. If not eating a meal within an hour, you are advised to eat a slow eating carbohydrate such as half sandwich.

Preventing foot problems



Keeping your diabetes under control and checking your feet daily can prevent serious foot problems. The nerve endings and blood supply to your feet may be affected by diabetes over time. Because of this, serious foot problems may occur without you realising. Here are some tips to protect your feet:

Check your feet daily

Look at the sole of your foot and in between your toes daily. It may be helpful to use a mirror or get someone else to help. You are looking for cuts, blisters, hard skin, or redness. Contact your podiatrist/doctor/nurse if you notice anything.

Wash your feet daily

Use warm water and mild soap. Check that the water is not too hot using your elbow.

Dry your feet thoroughly

Do not forget to dry in between your toes.

Keep your skin soft

Rub a small amount of emulsifying ointment on the top, bottom, and heel of both feet. Do not moisturise in between your toes. If you wash your feet often (i.e. with prayer) be sure to moisturise after, to not dry out the feet.

Do not walk barefoot

Always wear shoes to protect your feet.

On holiday

- Avoid walking barefoot on the sand, in the sea, or by the pool.
- Avoid wearing flip-flops or new shoes.
- Do not forget to apply sun cream to your feet.

- Be aware that your feet may swell in hot weather and shoes may become tighter and cause issues.

Bring a mini first aid kit with some dressings and antiseptic cream in case of injury. This is only for use until you can get urgent professional advice.

Footwear

- Avoid pointed-shoes, slip-ons, high heels, leather that does not stretch or hard plastic soles.
- Choose soft/cushioned/seamless leather soles, with good arch support.
- Choose shoes with a broad fit, deep enough for your foot, with a lace or soft strap to fasten.
- Avoid excessive stitching or heavy buckles.
- For new shoes, wear them for 30mins around the house and check for any redness after. Gradually extend the length of time in the new footwear, always remembering to carry out a foot inspection afterwards.

Socks

Wear clean socks that are not too tight.

Encourage good blood flow

Try to walk every half hour. Walking improves the blood supply to your feet.

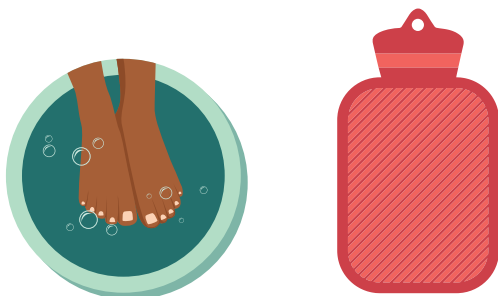
Blisters and minor cuts

- Clean cuts by bathing in freshly boiled, cooled water, and apply antiseptic cream.
- Use a sterile dressing.
- Contact your doctor/nurse/ podiatrist if you notice in a change in colour or sensation.
- Check the dressing for healing every day, and if there is no improvement contact your doctor, nurse, or podiatrist.



Things to avoid

- Avoid crossing your legs when sitting. This could damage the blood vessels in your legs.
- Avoid over-the-counter corn or verruca remedies.
- Avoid hot water bottles.
- Avoid Foot spas.
- Avoid circulation boosters.
- Avoid sitting too close to radiators or fires.



Do not use sharp instruments on your feet.

Symptoms requiring medical contact



- pain in your feet
- a numbness, pins and needles or burning feeling in your feet
- if you find a break in the skin
- if your foot or legs becomes red, hot, painful, or swollen
- if you notice fluid oozing from under hard skin or a toenail
- if your blood sugar levels are poorly controlled for no obvious reason
- if you have a cut in your skin, and experience flu-like symptoms

Sick day guidelines



Being unwell can disrupt your diabetes management and can raise your blood glucose levels, so you need to monitor your blood glucose levels regularly and keep them as close to target as possible.

General guidelines during illness

- Check blood glucose levels more frequently. If consistently above 15 mmol/l contact your diabetes team.
- Keep taking your medication as prescribed.
- Eat normally (where possible) and keep hydrated, sipping on water and sugar free fluids.

- If you are on insulin or tablets that have the potential to cause a hypo and you are unable to eat, sip on soft drink not sugar free.
- Visit your GP (General Practitioner) if necessary. Talk to your pharmacist about suitable remedies.

Symptoms requiring medical contact

Please speak to your doctor or nurse if you become unwell with the following:

- vomiting, diarrhoea or have a fever
- unable to eat or drink
- symptoms of a urinary or genital tract infection
- abdominal pain
- very tired or breathless

Driving with diabetes



General tips for driving with diabetes

- Always check your blood glucose level before your journey and check every 2 hours on a long journey. Take regular meals, snacks, and rest periods. Always avoid alcohol.
- **Do not drive until your blood glucose level is above 5.0 mmol/L.** If your blood glucose level is below 5.0 mmol/L have a snack and ensure it is above 5.0 mmol/L before you set off.
- If you develop a hypo while driving, stop the vehicle, remove the keys from the ignition and move into the passenger seat. Take 15g carbohydrate such as glucose tablets or sugary drink and retest. Do not start driving for 45 minutes after your blood glucose has returned to normal.

- Keep snacks and sugary drink in the car along with a blood glucose meter.
- If you wear a continuous glucose monitoring system, continue to carry a blood glucose meter to check your levels if required.

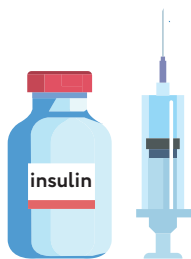
NDLS Contact details for your driving license

Tel: 1890 40 50 60

Email: medicalfitness@rsa.ie

www.ndls.ie

Insulin administration

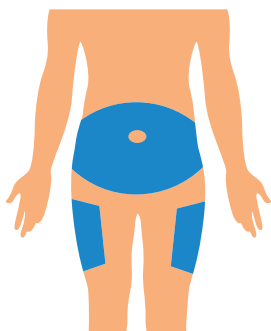


Your diabetes nurse or doctor will give you a practical explanation on how to use injections, but below are some reminders:

- Wash your hands (warm soapy water)
- If mixed insulin, roll the pen between your hands 10 times
- Fit a new needle to the pen
- Remove outer plastic caps
- Dial up the correct dose (individual to you)
- Inject needle into skin at a 90-degree angle
- Once the needle is in the skin, press the dose button. Wait until clicking sound has finished. Count to ten before withdrawing needle.
- Remove needle
- Dispose of needle in sharps bin. Your local health centre can provide you with a sharps bin.

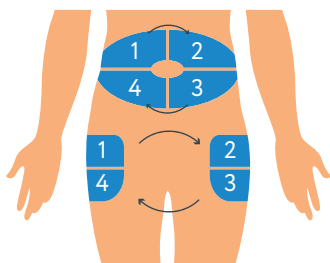
Where to inject

Recommended injection sites are; abdomen, upper half of both thighs, both upper buttocks and flanks and both upper arms.

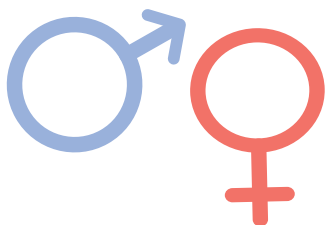


Injection site rotation

Rotate your injection sites regularly. For example, pick a numbered area in the diagram below, and inject in that area for one week only. Move onto another numbered area each week after that.



Pre Conception-care



Please speak to your doctor or nurse if you are planning a pregnancy.

- Before you become pregnant, you should use contraceptives until your diabetes team advises you it is safe to become pregnant.
- You will be given stricter blood glucose target levels, and you will be asked to monitor your blood glucose levels more regularly.
- You may need to change your medications, the ones you are taking may not be safe in pregnancy.
- You should have your eyes checked as pregnancy can put extra pressure on the small blood vessels at the back of the eyes.
- You will need to take Folic Acid 5mg daily which will need to be prescribed.

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CREDITS

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HEALTHCONNECT

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developed by Cairde.**

**All you need to know to access health
services in your local area.**



**For more information about diabetes
please visit**

www2.hse.ie/conditions/diabetes/

**Multilingual copies of this brochure
can be downloaded from**

HealthConnect.ie

Healthpromotion.ie