

LIVING WELL WITH TYPE 1 DIABETES

Understanding Type 1 diabetes

This booklet aims to help you understand what Type 1 diabetes is and how to manage it, so you can live and enjoy a normal life. It's intended to support the advice, and not replace the advice, you have received from your doctor, pharmacist or nurse. If you have any concerns or worries about your diabetes, please let them know and they will be able to help you.

This item is intended for adults with Type 1 diabetes who have been prescribed a Sanofi product.

The item has been developed and funded by Sanofi.

Test your knowledge

See how much you know about Type 1 diabetes by answering this short quiz and circling the correct answer. If you need help with your answers, you can skip forward to the relevant pages, or you can complete this at the end after you have read the booklet.

1. What is Type 1 diabetes?

- A. When the pancreas can't make any insulin
- B. When the pancreas doesn't make enough insulin and/or the insulin doesn't work properly
- C. When you eat too much sugar

For more information see page 3.

2. How can you manage Type 1 diabetes?

- A. By taking insulin
- B. By having a healthy diet and exercising regularly
- C. By having regular check-ups for your heart, kidneys, eyes and feet
- D. All of the above

For more information see pages 6 and 9-14.

3. What is a 'hypo'?

- A. When the level of sugar in the blood is below 4 mmol/L
- B. When the level of sugar in the blood is above 7-8.5 mmol/L
- C. When the correct amount of sugar is in the blood

For more information see pages 7-8.

4. What should you do to treat a 'hypo'?

- A. Nothing, it will pass after some time
- B. Have a nap and then eat or drink something that contains sugar
- C. Act quickly and eat or drink something that contains sugar

For more information see pages 7-8.

Answers: 1. A, 2. D, 3. A, 4. C.

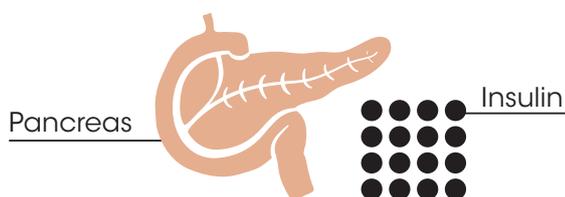
Introducing Type 1 diabetes

What is Type 1 diabetes?

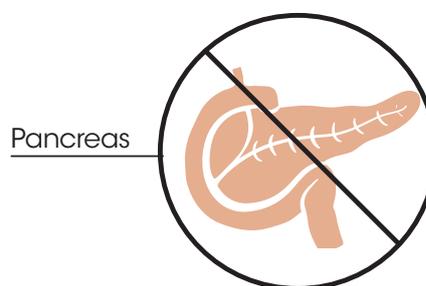
Diabetes is a life-long condition affecting over 4.3 million people in the UK. In people with diabetes, the level of sugar (glucose) within the blood is too high. If left untreated, this can cause serious health complications. There are two main types of diabetes: Type 1 and Type 2, and both have different causes.

In Type 1 diabetes, the insulin-producing cells within the pancreas can't make any insulin so the level of sugar in the blood is not controlled properly.

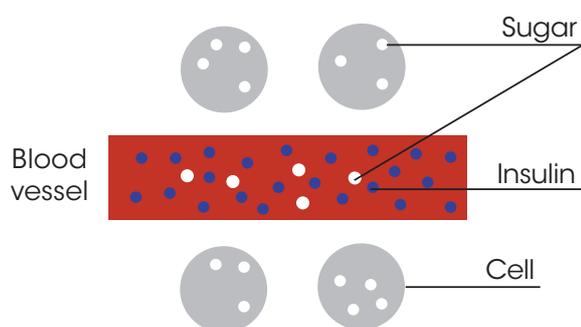
In people without diabetes



In people with Type 1 diabetes

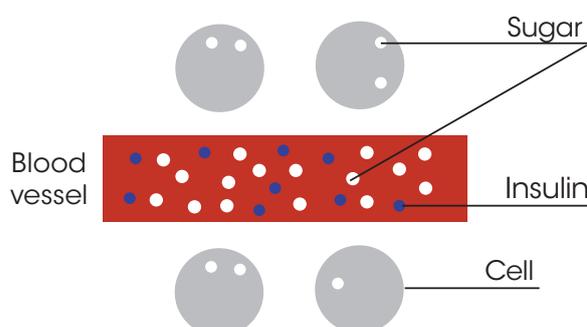


In people without diabetes, the correct amount of insulin the body needs is produced by the pancreas



Insulin acts like a key, 'unlocking' the cells so sugar in the blood can move into the cells and be used for energy. This helps the blood sugar levels stay normal

In people with Type 1 diabetes, the cells within the pancreas are damaged so the body can't make any insulin



With no insulin to help move sugar into the cells the amount of sugar in the blood is too high

Introducing Type 1 diabetes

What are the symptoms of Type 1 diabetes?

Not everyone will experience the same symptoms, but the most common signs of Type 1 diabetes are:



feeling thirsty all the time



feeling very tired



urinating more than usual



losing weight without trying to

What causes Type 1 diabetes?

Type 1 diabetes is an autoimmune condition and isn't caused by your lifestyle.

Normally, the body's immune system helps to protect us by recognising 'foreign' cells which shouldn't be in the body and targeting them, so they become damaged and can no longer cause infection or illness. However, in people with Type 1 diabetes the immune system mistakenly recognises the body's own cells within the pancreas as 'foreign' and targets them. This means they become damaged and the pancreas can no longer make insulin. The reason for this is not clearly understood.

Not being able to make insulin causes the level of sugar in the blood to get too high. When you eat your body breaks down carbohydrates such as bread, pasta and potatoes into sugar. Insulin usually helps the body move this sugar into the cells to be used for energy, but without it the sugar stays in the blood.

References 1-3.

Health complications

What are the possible complications?

Type 1 diabetes is most commonly diagnosed in early childhood, but some people can be diagnosed as a young adult. Having high blood sugar levels (also known as hyperglycaemia) for a long time can lead to health complications, so it's important to start managing your blood sugar levels as soon as you're diagnosed.

If Type 1 diabetes is not well controlled, it could lead to:



Eyesight complications

The 'seeing' part of the eye called the retina could get damaged and if left untreated it could lead to poor eyesight, and in extreme cases loss of sight



Kidney complications

The kidneys could get damaged meaning the body may be less able to get rid of 'waste' via urine



Sexual dysfunction

Damaged nerves and blood vessels could lead to difficulty achieving and/or maintaining an erection in men and loss of libido, pain during sex and vaginal dryness in women



Heart complications

The heart may not get enough blood which could lead to a heart attack or a stroke



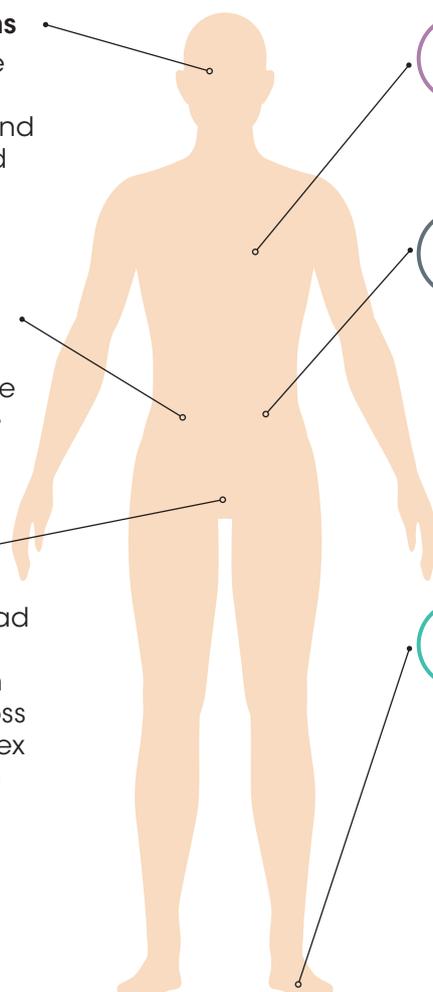
Pregnancy complications

If you have diabetes and are planning to become pregnant it's important to seek medical advice from your doctor or nurse beforehand, as diabetes can lead to complications during pregnancy



Feet and leg complications

Damage to nerves and blood vessels in the feet could mean you don't feel a simple cut or blister, which could become infected or lead to an ulcer



References 4-8.

Managing Type 1 diabetes

There are several ways to manage Type 1 diabetes and your doctor or nurse will decide on the best treatment for you depending on your needs.



Insulin

As the body can't make insulin in Type 1 diabetes, it's up to you to test your blood sugar levels regularly and to control it using diabetes medication such as insulin.

There are different types of insulin and your doctor or nurse will decide which type(s) is best for you. Insulin should be injected into the body as shown by your doctor or nurse, after blood sugar tests show your levels are too high. Once insulin is injected into the body, it helps move sugar out of the blood and into cells to be used as energy.



Health and lifestyle

As well as taking insulin, it would be good to look after your general health and live a healthy lifestyle. For example, finding a balance between the amount of sugar you eat and drink, and the amount you use as energy is a good way to control your blood sugar levels further. For more information on how to live well with Type 1 diabetes please see **pages 9-14**.

Always take your medications as instructed by your doctor, pharmacist or nurse.

References 3, 8 and 9.

Hypoglycaemia

What is hypoglycaemia?

Normally your blood sugar levels should be between 4–7 mmol/L when you're fasting (before breakfast). If your blood sugar levels fall below 4 mmol/L, you may start to feel unwell, this is known as hypoglycaemia or a 'hypo'.

What causes a hypo?

The cause of a hypo is not always clear but the following can increase the chance of your blood sugar levels falling too low:

- missing or delaying a meal
- exercising more than usual without having extra snacks or reducing your tablet/insulin dose
- taking a dose of tablets/insulin that is too high
- drinking alcohol
- hot weather
- sexual activity
- certain illnesses*
- some medicines**

Signs of a hypo

A hypo can occur quickly so it's important to **know the early warning signs**. The most common ones are:



tiredness or headaches



sweating heavily



dizziness or shaking



being sick



rapid heart beat



blurred vision



feeling hungry



feeling anxious or excited

*Particularly infections, vomiting or diarrhoea.

**Your doctor, pharmacist or nurse will be able to advise you which medicines can cause a hypo.

References 10–12.

Hypoglycaemia

How to treat a hypo?

If you experience hypo symptoms or if a blood sugar test has shown your levels are below 4 mmol/L, you must **act quickly** and:



eat or drink something that contains a lot of sugar, such as a small glass of a sugary drink (non-diet) or 4-5 glucose tablets



test your blood sugar level after 10-15 minutes to see if it's more than 4 mmol/L, if it's not eat or drink more sugary foods



if your blood sugar level is more than 4 mmol/L have your next meal (containing carbohydrates) or a starchy snack, such as a sandwich, biscuits or fruit

If you're not sure what or how much you should be eating and drinking during a hypo, or if you're having a lot of hypos, speak to your doctor, pharmacist or nurse.

What if I am unconscious?

Not acting quickly when you have a hypo could lead you to become unconscious. If this happens make sure your relatives, friends and close colleagues know how to react. They **must not** give you food or drink to try and give you more sugar as you could choke. Instead, they should **call an ambulance** and put you in the recovery position.

How to prevent a hypo?

There are several ways you can reduce the chance of getting a hypo:



test your blood sugar levels regularly



plan ahead and carry extra snacks



plan ahead and carry extra snacks



Always keep your diabetes ID or insulin passport with you

References 10-12.

Living well with Type 1 diabetes

A healthy, balanced diet

Having a healthy, balanced diet can help keep you in good health. It's an important part of keeping your diabetes under control.

Tips for healthy eating



at regular meals

Always eat breakfast and try not to skip meals. Also, make sure to always carry snacks with you



Eat your 'five a day'

All fruit and vegetables are good for you. They are full of vitamins, minerals and fibre, and contain little fat. Aim for at least five helpings every day



Eat healthier carbohydrates

Eat wholegrain breads and cereals. Have fruit whole rather than as a juice and try quinoa as an alternative to pasta



Eat less fatty foods

Use skimmed or semi-skimmed milk, and grill, steam or bake foods instead of frying them



Reduce your salt intake

There is a lot of salt in ready meals so try to cook your meals fresh and replace salt with herbs or spices



Eat more fish and fibre

Try to eat more fish and foods high in fibre, such as tuna, salmon, wholemeal bread and beans



Stay hydrated

Try to drink 8–10 glasses of fluid a day, such as water, tea or coffee and try not to add any sugar



Eating out

When going out for a meal, work out when you need to eat and if you need to change your insulin dose, as you may eat more than usual

If you would like more advice about healthy eating, your doctor or nurse may be able to arrange for you to see a dietitian.

References 8 and 13.

Living well with Type 1 diabetes

Keeping active

Regular physical activity also helps to maintain good health and has several essential benefits:

- it helps to maintain a healthy weight
- it's good for the heart and reduces the risk of heart disease, high blood pressure and high blood cholesterol
- it helps to control blood sugar levels
- it reduces stress and improves sleep

Tips for being active



Aim to do at least 30 minutes of moderate or 15 minutes of high intensity activity five times a week



Wear suitable footwear and check your feet before and after each activity



Keep your diabetes ID and insulin passport with you, and think about adapting your treatment if needed, with the advice from your doctor, pharmacist or nurse



Stay hydrated and drink fluids regularly and carry extra snacks with you



Aim to walk 10,000 steps a day and use a step counter to track this



Instead of taking the lift or an escalator, use the stairs



Walk or cycle instead of driving or taking public transport where possible



Start a new activity that you will enjoy and keep you active, such as gardening, dancing, cycling or swimming

References 8 and 14.

Living well with Type 1 diabetes

Alcohol

Provided you drink in moderation, there is no reason why you should have to give up alcohol due to diabetes. However, it's very important that you drink responsibly.

Tips to drink responsibly



Never drink on an empty stomach and carry snacks with you



Use sugar-free mixers with cocktails or spirits



Pace yourself and keep track of how much you've drunk



Always keep your diabetes ID or insulin passport with you



Remember that alcohol can lower your blood sugar levels

Smoking

Smoking is bad for your health, but especially for those with diabetes. Giving up smoking is highly recommended for people with diabetes as it can reduce the risk of high blood pressure, heart disease or a stroke.



Ask your doctor, pharmacist or nurse for information about the best way to give up smoking



By stopping smoking you can reduce your chances of complications like a heart attack or a stroke

For more information, contact the free NHS Smoking Helpline on: 0300 123 1044 or visit the website at: www.smokefree.nhs.uk

References 8 and 15.

Living well with Type 1 diabetes

Illness

It's important to take care of yourself when you're ill. If your diabetes isn't well managed it can increase your risk of developing a cold, flu or an infection.

Tips to managing diabetes with illness



Check your blood sugar levels more often when you're ill – at least four times a day, as being ill can have an impact on your blood sugar levels



Stay well hydrated and drink at least 8-10 glasses of fluid a day, such as water, tea or coffee



Try to carry on eating, but if you can't keep food down and feel sick, replace meals with small snacks, glucose tablets or sugary drinks (non-diet)



Contact your doctor, pharmacist or nurse if you're unsure on what to do and if you need to adjust your insulin dose

Reference 16.

Living well with Type 1 diabetes

Driving

Having diabetes doesn't necessarily mean you have to give up driving. However, you must ensure you meet the criteria set out by the DVLA and let them know you have diabetes, and if you take insulin.

Tips for driving



Check your blood sugar levels before you set off



If your blood sugar level is below 5 mmol/L don't drive



Stop regularly and take breaks every 2 hours during long journeys. Check your blood sugar levels each time you stop



Keep some sugar (glucose tablets, sugary drink) or starchy (dried fruit or biscuits) foods in the car



Stick to your usual meal and snack times – don't delay them

Driving and hypos

Don't drive if you're unable to recognise the early warning signs of a hypo. If you're driving and think you may be having a hypo do the following:

- find a safe place to stop as soon as possible
- take the keys out of the ignition and move into the passenger seat
- eat or drink something that contains a lot of sugar, such as a small glass of a sugary drink (non-diet) or 4–5 glucose tablets
- when you start to feel better have a starchy snack, such as fruit, a biscuit or a sandwich to keep your blood sugar levels up
- test your blood sugar levels and do not drive if they are below 5 mmol/L
- you should not drive for at least 45 minutes after recovering from a hypo, as your response rate will be slower

For the more information, visit the DVLA website at: www.gov.uk/diabetes-driving or contact them on 0300 790 6806.

References 13 and 17.

Living well with Type 1 diabetes

Going on holiday

If you're going on holiday abroad, you should see your doctor or nurse before you leave. They'll be able to give you advice and help you prepare for your trip.

Tips for travelling



Arrange to see your doctor or nurse at least two weeks before you depart, for advice about:

- travel jabs
- meal planning for the journey
- long-haul travel
- foods in other countries
- storage of your insulin while travelling
- jet lag and the impact it may have on meal times, and when you need to inject insulin



If you're travelling alone, let the staff at your hotel know that you have Type 1 diabetes in case you become unwell



For airplane travel:

- bring a letter from your doctor explaining your need to carry syringes or injection devices, insulin and any other medication
- carry all your diabetes medication as hand luggage in case your checked-in bags go missing, or your medicines are damaged in the baggage hold



Always keep your diabetes ID or insulin passport with you



Bring twice the quantity of medical supplies you would normally use for your diabetes and find out where you can get supplies of insulin at your destination in case of emergency



In hot weather, check your blood sugar levels regularly and drink plenty of water, tea or coffee

Travelling to a hot or cold climate can affect how your insulin and blood glucose monitor work. Talk to your doctor or nurse if you have any questions.

Reference 15 and 18.

Your diabetes team

Use the space provided below to note down the contact details of your diabetes team.



Doctor (GP)

A local doctor overseeing your care and treatment who may refer you to a diabetes clinic.

Name:

Telephone:



Practice nurse

A practice nurse helps your doctor to support your diabetes care and treatment.

Name:

Telephone:



Diabetologist

A doctor that is specialised in treating patients with diabetes.

Name:

Telephone:



Diabetes specialist nurse

A nurse specialised in giving support and advice to diabetes patients.

Name:

Telephone:



Pharmacist

A qualified pharmacist at your local chemist who supplies and reviews your diabetes medication.

Name:

Telephone:



Dietitian

An expert who can give support and advice on the dietary changes needed to help manage your diabetes.

Name:

Telephone:



Podiatrist

An expert who can give advice on how to deal with any complications with your feet and legs, due to your diabetes.

Name:

Telephone:



Ophthalmologist

A doctor specialising in eyes who can check your vision and provide any treatments if needed.

Name:

Telephone:



Psychologist

An expert who can give emotional support if your diabetes is having a negative impact on everyday life.

Name:

Telephone:

Your healthcare checklist

Control your diabetes – don't let it control you.

Looking after your general health is important to help manage your diabetes and regular check-ups are central to this. Use the checklist below to ensure you're getting the best care and support.

HbA_{1c} blood test

This blood test will measure your average blood sugar levels over the last 2–3 months. It's a good indicator of how well your diabetes has been controlled.

Blood pressure test

Having diabetes increases your risk of heart and kidney disease. High blood pressure increases this risk further, so a test must be done once a year to reduce this risk and detect it early.

Test for cholesterol

People with diabetes are more likely to have high cholesterol which is a fatty substance in the blood. This increases the risk of heart disease, so a test must be done once a year to detect and treat it early.

Kidney function test

Having diabetes increases your risk of kidney disease. Two tests must be done each year (one urine and one blood test) to check if your kidneys are working properly or if they are damaged.

Support to stop smoking

Having diabetes increases your risk of heart disease and smoking increases this risk further, so it would be beneficial to quit smoking.

Diabetic eye screening test

Loss of eye sight is common in people with diabetes. You must contact your doctor or nurse if you notice any changes or have blurred vision, and they may refer you to an ophthalmologist (eye specialist) for a free eye test.

Feet and leg check-up

Diabetes can damage the nerves and blood vessels in your feet, meaning you may not realise you're hurt, or cuts and wounds could easily get infected. It's important to have regular check-ups with a podiatrist (foot specialist) to treat any problems early on.

Flu jab

Once-a-year you must get a flu jab from your doctor or nurse, as having diabetes can increase your risk of getting other severe illnesses if you get the flu.

Dietary advice

Carrying too much weight around your middle increases your risk of heart disease, high blood pressure and high blood cholesterol. So, it's important to maintain a healthy weight and a dietitian can advise you on the right diet to do this.

Emotional support

Diabetes is a life-long condition and it can impact your day-to-day life. For support on how to cope, talk to your doctor or ask for specialist help.

Reporting of side effects: If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in the package leaflet. You can also report side effects directly via the Yellow Card Scheme at yellowcard.mhra.gov.uk.

By reporting side effects you can help provide more information on the safety of this medicine.

Sanofi Medical Information:

08000 35 25 25

Sanofi, 410 Thames Valley Park Drive, Reading, Berkshire, RG6 1PT

sanofi

References:

1. Diabetes UK. Facts & Figures. Available at: <https://www.diabetes.org.uk/professionals/position-statements-reports/statistics> Date accessed: March 2024
2. NHS. Type 1 diabetes overview. Available at: <https://www.nhs.uk/conditions/type-1-diabetes/>. Date accessed: March 2024
3. Diabetes UK. What is Type 1 diabetes? Available at <https://www.diabetes.org.uk/diabetes-the-basics/types-of-diabetes/type-1>. Date accessed: March 2024
4. NHS. Type 1 diagnosis. Available at: <https://www.nhs.uk/conditions/type-1-diabetes/symptoms-and-getting-diagnosed/>. Date accessed: March 2024
5. NHS. Type 1 complications. Available at: <https://www.nhs.uk/conditions/type-1-diabetes/living-with-type-1-diabetes/avoiding-complications/>. Date accessed: March 2024
6. Diabetes UK. Diabetes complications. Available at: <https://www.diabetes.org.uk/guide-to-diabetes/complications>. Date accessed: March 2024
7. Diabetes UK. Planning for Pregnancy. Available at: <https://www.diabetes.org.uk/guide-to-diabetes/life-with-diabetes/pregnancy>. Date accessed: March 2024
8. NHS. Living with Type 1 diabetes. Available at: <https://www.nhs.uk/conditions/type-1-diabetes/living-with-type-1-diabetes/get-support/>. Date accessed: March 2024
9. NHS. Type 1 diabetes treatment. Available at: <https://www.nhs.uk/conditions/type-1-diabetes/managing-insulin/about-insulin/>. Date accessed: March 2024
10. Diabetes UK. Hypos. Available at: <https://www.diabetes.org.uk/Guide-to-diabetes/Complications/Hypos>. Date accessed: March 2024
11. NHS. Low blood sugar (hypoglycaemia). Available at: <https://www.nhs.uk/conditions/low-blood-sugar-hypoglycaemia/>. Date accessed: March 2024
12. Diabetes UK. Living with diabetes. Available at: <https://www.diabetes.org.uk/guide-to-diabetes/managing-your-diabetes/healthy-eating>. Date accessed: March 2024
13. Diabetes UK. Diabetes and Exercise. Available at: <https://www.diabetes.org.uk/guide-to-diabetes/managing-your-diabetes/exercise>. Date accessed: March 2024
14. Diabetes UK. Type 1 drinking. Available at: <https://www.diabetes.org.uk/guide-to-diabetes/young-adults/type-1-drinking>. Date accessed: March 2024
15. Diabetes UK. Illness. Available at: <https://www.diabetes.org.uk/guide-to-diabetes/life-with-diabetes/illness>. Date accessed: March 2024
16. DVLA. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/834451/inf294-a-guide-to-insulin-treated-diabetes-and-driving.pdf. Date accessed: March 2024
17. Diabetes UK. Travel and diabetes. Available at: <https://www.diabetes.org.uk/Guide-to-diabetes/Life-with-diabetes/Travel>. Date accessed: March 2024
18. Diabetes UK. 15 healthcare essentials. Available at: <https://www.diabetes.org.uk/resources-s3/2018-07/15-Healthcare-essentials.pdf>. Date accessed: March 2024