

to reduce your risk of heart  
and circulatory diseases



# What is diabetes?

## Type 1 diabetes

- Your body doesn't make insulin, a hormone that controls your blood glucose (sugar) levels
- 1 in 10 people with diabetes are Type 1
- Children and young adults are more likely to be diagnosed with Type 1 diabetes.

## Type 2 diabetes

- Your body doesn't make enough insulin or can't use the insulin it makes
- 9 out of 10 people with diabetes have Type 2
- People are more likely to develop this as they get older.

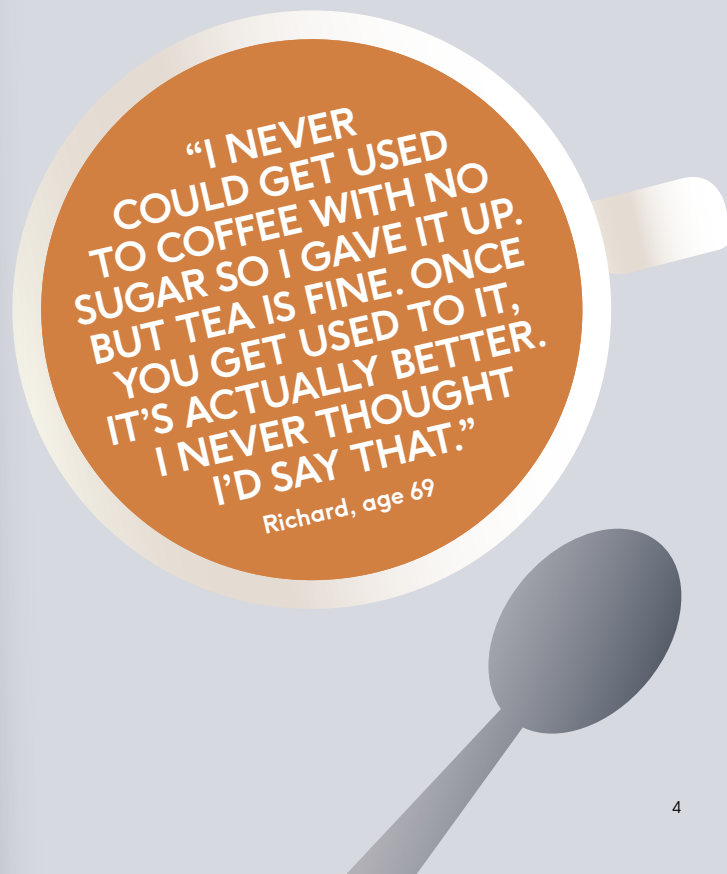
**This leaflet is for people who have or are at risk of Type 2 diabetes.** Diabetes puts your heart health at risk because it damages your arteries (the blood vessels that carry blood to your organs). You need to make some changes to reduce this risk and look after your heart for years to come.

Insulin is a hormone that controls how much glucose (sugar) is in your blood. Not having enough insulin in your blood, or your body not being able to use insulin in the right way, leads to you having too much glucose in your blood.

Your doctor will tell you if you are at risk of Type 2 diabetes, which can put you at risk of heart and circulatory diseases, including a heart attack or stroke.

### **Pre-diabetes**

If your test results show you don't have diabetes, your doctor may say that you have pre-diabetes. That means if you don't change some of your habits now, you have a higher risk of developing diabetes and damaging your long-term health. Making some changes could reduce that risk dramatically.



# Understanding diabetes


Insulin is produced by the pancreas which plays a very important role in our bodies.

After we eat, we begin to digest foods containing carbohydrates, breaking them down into glucose. In people who don't have diabetes, insulin is released when they eat. It acts as a signal for cells around their body to absorb the glucose and use it as fuel for energy.


In people with Type 2 diabetes, their body doesn't make enough insulin or can't use the insulin it makes. It's as if they have a 'weak signal'. Their body doesn't respond to the insulin as it should and the cells don't absorb enough of the glucose.

This is known as insulin resistance. This results in high levels of glucose in your bloodstream. High levels of glucose in your bloodstream for a long period of time can damage your arteries (the blood vessels that carry blood to your organs) and increase your risk of heart and circulatory diseases.

## Inside the bloodstream

 The body doesn't make enough insulin or can't use the insulin it makes

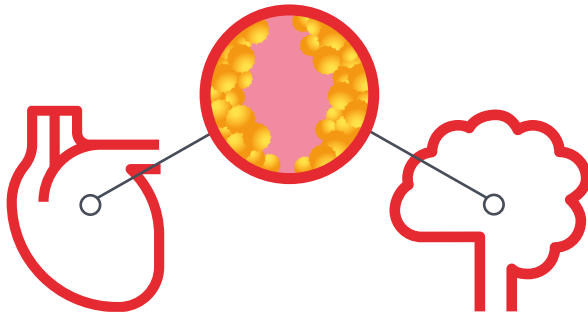
Without insulin cells can't absorb glucose from the bloodstream

 Too much glucose in the bloodstream can damage the walls of your arteries

 Fatty deposits can build up

# What does diabetes have to do with heart and circulatory diseases?

The build-up of too much glucose in the bloodstream damages your arteries. This damage to the arteries makes it easier for fatty deposits to build up. If the arteries that carry blood to your heart get damaged and clogged, it can lead to a heart attack. If this happens in the arteries that carry blood to your brain it can lead to a stroke.



Artery in the heart getting blocked

Artery in the brain getting blocked

# Symptoms associated with diabetes

It's not always easy to tell if you have diabetes. Different people get different symptoms at various times and these symptoms can develop slowly. Many people with Type 2 diabetes don't know they have it.

You may have diabetes if you are:

- often very thirsty
- peeing more than usual, particularly at night
- often very tired
- losing weight unexpectedly
- having blurred vision
- having genital itching or regular episodes of thrush
- noticing that your cuts or wounds heal slowly.

You are more likely to develop Type 2 diabetes if you are overweight, especially if you carry weight around your middle. Don't ignore symptoms. Your doctor can diagnose you, help you manage your condition and stop things getting worse.

# Managing Type 2 diabetes

People with Type 2 diabetes can improve their health and reduce their risk of heart and circulatory diseases by making simple changes.

If you have or are at risk of Type 2 diabetes, you can improve your health by:



Losing weight, especially if you carry weight around your middle



Being more active



Giving up smoking

**Being a healthy weight is an important way to protect yourself from heart and circulatory diseases and also from developing diabetes and diabetes related complications later on in life.**

# Eat a healthier diet

Healthy eating for weight loss doesn't mean counting calories or cutting out food groups. It means eating more of the foods that are good for you like fruit, vegetables and wholegrains and less of foods and drinks that are high in fat and sugar.



Full fat milk



Semi or skimmed milk



Chocolates



Fresh fruit



Sugar in tea or coffee



Halve the amount of sugar and decrease from there, or try herbal fruit teas



Ice cream



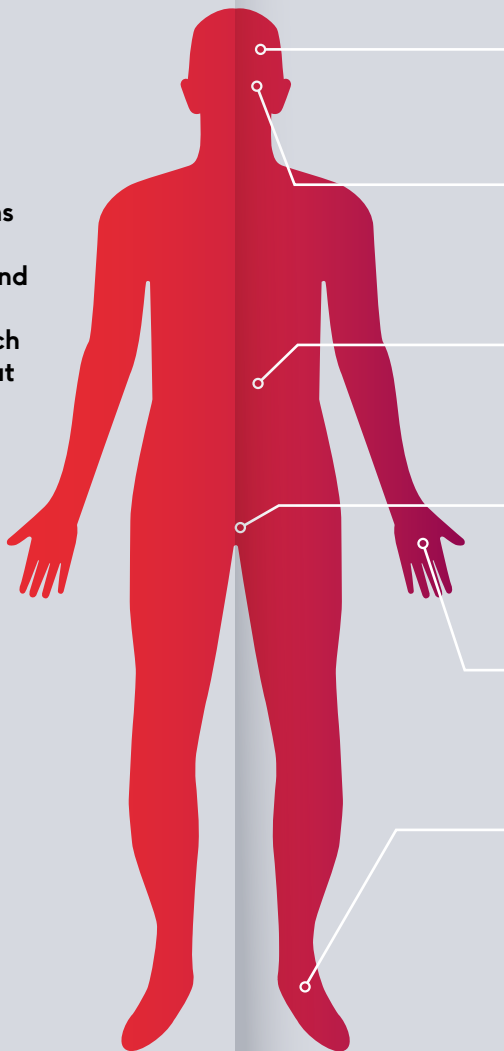
Natural yogurt with fruit

# The risks of diabetes

Diabetes can cause a range of problems over time. But with management and support from your GP, practice nurse and diabetes specialist team, you can keep your blood sugar levels (that's how much glucose is in your blood) in check so that your risk of developing these problems is reduced.

As well as harming your heart and blood vessels, diabetes can affect other parts of your body.

You should have an annual check up to monitor your health and look out for these signs and symptoms.



**Brain** – People with diabetes are 2–3 times more likely to develop vascular dementia due to blood vessels becoming damaged.

**Eyes** – Diabetes can affect the blood vessels in your eyes, leading to problems with your eyesight. This is called retinopathy and can cause blindness.

**Kidneys** – Diabetes can damage the small blood vessels in your kidneys, so the kidneys work less well at getting toxins out of your body. This is called nephropathy.

**Sex organs** – Men may experience erectile dysfunction and women may experience a decrease in sexual desire, pain during sex or inability to reach orgasm.

**Nerves** – Damage to your nerves can lead to loss of sensation, pain, numbness or tingling, hands, legs and feet. This is called peripheral neuropathy.

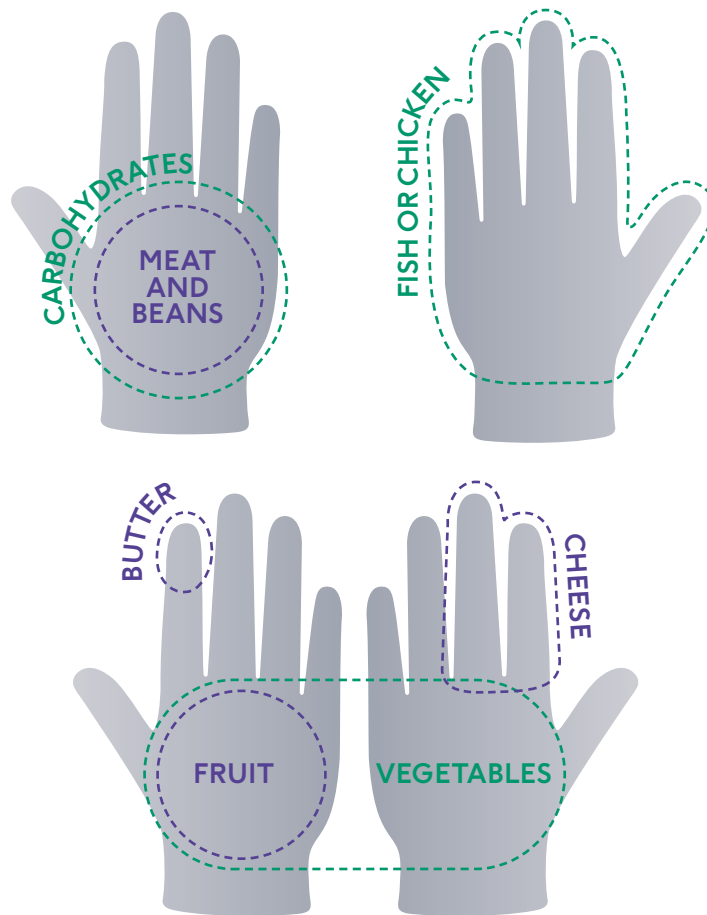
**Feet** – There may be problems with your circulation that can lead to ulcers on your toes, and lower limbs. If these are not treated over a long period of time, they can result in amputation.

# Get portion sizes right

It's important to eat the right amount of food. If your portion sizes are too big, your weight and your blood glucose control will be harder to manage. It will also stop or slow down weight loss, which is often part of managing diabetes.

Using your hands is an easy way to measure food portions.

Eating off larger plates and bowls can make you eat more than you need to. Use smaller plates whenever you can.



- Portions of carbohydrates like pasta, rice or a potato should be the size of your fist.
- Meat and beans should be the size and width of your palm.
- A portion of chicken or fish is the size of your whole hand.
- A portion of butter is the size of your fingertip and cheese should be less than the length and depth of two fingers.
- A fruit portion sits in the palm of one hand and vegetables across two hands.

# Cut back on sugar

Eating less sugar can help keep your blood glucose levels under control and keep your weight in check. The sugar found naturally in fruit, vegetables and dairy foods is good for us. It's the added sugar in foods we need to cut down on.

Remember that sugar isn't just in foods that taste sweet like chocolate, cake or sweetened drinks. It's hidden in many foods including: breakfast cereals, pasta or curry sauces, tomato sauce, baked beans, low-fat yoghurts, takeaways and ready meals.

The other thing you need to know is that sugar comes with many different names. Syrup, glucose, dextrose, sucrose and honey are all types of sugar. No one type is 'better' for you than another; all added sugars mean the same thing for your body.

# Look at food labels

Look at the labels on the food you buy. Make sure you mostly eat things that are labelled green or amber for sugars.

	FAT	SUGARS	SATURATES	SALTS
<b>LOW</b> Healthier choice	3g or less	5g or less	1.5g or less	0.3g or less
<b>MED</b> OK most of the time	3.1g to 17.5g	5.1g to 22.5g	1.6g to 5g	0.3g to 1.5g
<b>HIGH</b> Just occasionally	More than 17.5g	More than 22.5g	More than 5g	More than 1.5g

All measures as 100g





# Move more

**Being more active will help keep your blood glucose in check, reduce your risk of heart and circulatory diseases and help manage your weight.**

Being active helps you use the insulin you have in your bloodstream better and helps your cells use glucose. Overall, this will help to decrease your blood sugar levels.

Aim to do 150 minutes of exercise a week – that's about 20–30 minutes a day. Make sure each burst is at least 10 minutes or more. Fast walking, cycling, or even climbing stairs a few times all count. Anything that makes you breathe a bit harder and feel warmer will help.



Heart transplants. Clot busting drugs. Pacemakers. Breakthroughs born from visionary medical research. Research you fund with your donations.

Heart and circulatory diseases kill 1 in 4 people in the UK. They cause heartbreak on every street. But if research can invent machines to restart hearts, fix arteries in newborn babies, build tiny devices to correct heartbeats, and give someone a heart they weren't born with – imagine what's next.

We fund research into all heart and circulatory diseases and their risk factors. Heart attacks, heart failure, stroke, vascular dementia, diabetes and many more. All connected, all under our microscope. Our research is the promise of future prevention, cures and treatments.

The promise to protect the people we love. Our children. Our parents. Our brothers. Our sisters. Our grandparents. Our closest friends.

You and the British Heart Foundation. Together, we will beat heartbreak forever.

**Beat heartbreak forever.**

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