

Diabetes Type 2

Diabetes is a lifelong condition that causes a person's blood sugar level to become too high.

In the UK, approximately 2.9 million people are affected by diabetes. There are also thought to be around 850,000 people with undiagnosed diabetes.

Types of diabetes

There are two main types of diabetes, referred to as type 1 and type 2.

Type 2 diabetes occurs when the body doesn't produce enough insulin to function properly, or the body's cells don't react to insulin. This is known as insulin resistance.

Type 2 diabetes is far more common than type 1 diabetes, which occurs when the body doesn't produce any insulin at all. In the UK, about 90% of all adults with diabetes have type 2 diabetes.

This topic focuses on type 2 diabetes. You can read more information on [type 1 diabetes](#).

Type 2 diabetes usually affects people over the age of 40, although increasingly younger people are also being affected.

Diabetes symptoms

Diabetes can cause various symptoms. Symptoms common to both types of diabetes include:

- feeling very thirsty
- urinating frequently, particularly at night
- feeling very tired
- weight loss and loss of muscle bulk

You should contact a doctor as soon as possible if you notice these symptoms.

Many people have type 2 diabetes for years without realising because the early symptoms can be mild.

Visit your doctor as soon as possible if you think you have diabetes. Early diagnosis and treatment may reduce your risk of developing complications later on.

Other symptoms of diabetes can include:

- itchiness around the vagina or penis, or regular bouts of [thrush](#) (a yeast infection)
- blurred vision that is caused by the lens of your eye becoming very dry
- cramps
- constipation
- skin infections

Not everyone will experience the above symptoms, and they are not usually severe in those who do get them.

Hyperglycaemia (high blood glucose)

Type 2 diabetes develops when the pancreas (a large gland behind your stomach) is unable to produce enough insulin to control your blood glucose level, or when the body's cells don't respond properly to insulin that is produced.

Due to the lack of insulin or its inability to regulate blood glucose, your blood glucose levels may become very high.

Hyperglycaemia can occur for several reasons, including eating too much, being unwell and not taking enough diabetes therapy.

The main symptoms of diabetes are due to hyperglycaemia. They include:

- extreme thirst
- a dry mouth
- blurred vision
- drowsiness
- a need to pass urine frequently

Risk factors for type 2 diabetes

You are more likely to develop type 2 diabetes if you:

- are over 40 years old
- have a relative with the condition
- are of Asian, African-Caribbean or Middle Eastern origin
- are overweight or obese

Age

Your risk of developing type 2 diabetes increases with age.

This may be because people tend to gain weight and exercise less as they get older. Maintaining a healthy weight through a healthy, balanced diet and exercising regularly are ways of preventing and managing diabetes.

Type 2 diabetes often develops in white people over the age of 40. People of Asian, African, African-Caribbean and Middle Eastern descent have an increased risk of developing type 2 diabetes at a much earlier age.

However, in recent years, an increasing number of younger people from all ethnic groups are developing the condition.

It is also becoming more common for children, in some cases as young as seven, to develop type 2 diabetes.

Genetics

Genetics is one of the main risk factors for type 2 diabetes. Your risk is increased if you have a close relative, such as a parent, brother or sister, who has the condition; the closer the relative, the greater the risk.

A child who has a parent with type 2 diabetes has about a one-in-three chance of also developing it (see below).

Ethnicity

People of Asian, African, African-Caribbean and Middle Eastern descent are more likely to develop type 2 diabetes.

The condition is up to six times more common in South Asian communities than in the general UK population, and it is three times more common among people of African and African-Caribbean origin.

People of Asian and African-Caribbean origin also have an increased risk of developing complications of diabetes, such as heart disease, at a younger age than the rest of the population.

Being overweight or obese

If you are overweight or obese (you have a body mass index of 30 or greater), you are at greater risk of developing type 2 diabetes.

In particular, fat around your abdomen (tummy) puts you at increased risk. This is because it releases chemicals that can upset the body's cardiovascular and metabolic systems. This then increases your risk of developing various conditions, including heart disease, stroke and some types of cancer.

A quick way of assessing your diabetes risk is to measure your waist. This is a measure of abdominal obesity, which is a particularly high-risk form of obesity.

Women have a higher risk of developing type 2 diabetes if their waist measures 31.5 inches (80cm) or more. Asian men with a waist size of 35 inches (90cm) or over have a higher risk, as do white or black men with a waist size of 37 inches (94cm) or over.

Reducing your body weight by about 5% and exercising regularly could reduce your risk of getting diabetes by more than 50%.

Other risks

Your risk of developing type 2 diabetes is also increased if you have impaired fasting glycaemia (IFG) or impaired glucose tolerance (IGT).

These conditions are sometimes referred to as "pre-diabetes" and mean that your blood glucose level is higher than normal but not high enough to cause diabetes. IFG and IGT can both progress to type 2 diabetes if you do not take preventative steps.

Treating type 2 diabetes

It is important diabetes is diagnosed as early as possible. Diabetes cannot be cured, but treatment aims to keep your blood glucose levels as normal as possible to control your symptoms and minimize health problems developing later.

If you are diagnosed with diabetes, you may be referred to a diabetes care team for specialist treatment, or your DOCTOR surgery may provide first line diabetes care.

In some cases of type 2 diabetes, it may be possible to control your symptoms by altering your lifestyle, such as eating a healthy diet (see below).

However, as type 2 diabetes is a progressive condition, you may eventually need medication to keep your blood glucose at normal levels. To start with this will usually take the form of tablets, but later on it may include injected therapies, such as insulin.

There is no cure for diabetes, so treatment aims to keep your blood glucose levels as normal as possible and to control your symptoms to prevent health problems developing later in life.

If you have been diagnosed with diabetes, your DOCTOR will be able to explain your condition to you in detail and help you to understand your treatment. They will closely monitor your condition to identify any health problems that may occur.

If there are any problems, you may be referred to a hospital based diabetes care team.

Care standards for diabetes

In treating diabetes, the aim is to help people with the condition control their blood glucose levels and minimise the risk of developing future complications.

Good diabetes (UK Standards) includes:

- awareness of the risk factors for type 2 diabetes
- advice and support to help people at risk of type 2 diabetes reduce that risk
- access to information and appropriate support for people with type 1 and type 2 diabetes, including access to a structured education programme.
- an agreed care plan, helping all people with diabetes to manage their care and lead a healthy lifestyle, including a named contact for their care
- information, care and support to enable all people with diabetes to optimise their blood glucose level, maintain an acceptable blood pressure and minimise other risk factors for developing complications
- access to services to identify and treat possible complications, such as screening for diabetic retinopathy and specialised foot care

- effective care for all people with diabetes admitted to hospital, for whatever reason

Complications

Left untreated, diabetes can cause many health problems. Large amounts of glucose can damage blood vessels, nerves and organs.

Even a mildly raised glucose level that doesn't cause any symptoms can have damaging effects in the long term.

If diabetes is not treated, it can lead to a number of different health problems. High glucose levels can damage blood vessels, nerves and organs.

Even a mildly raised glucose level that does not cause any symptoms can have damaging effects in the long-term.

Heart disease and stroke

If you have diabetes, you are up to five times more likely to develop heart disease or have a stroke.

Prolonged, poorly controlled blood glucose levels increase the likelihood of atherosclerosis (a condition involving the furring and narrowing of your blood vessels).

This may result in a poor blood supply to your heart, causing angina (a dull, heavy or tight pain in the chest). It also increases the chance that a blood vessel in your heart or brain will become blocked, leading to a heart attack or stroke.

Nerve damage

High blood glucose levels can damage the tiny blood vessels in your nerves. This can cause a tingling or burning pain that spreads from your fingers and toes up through your limbs. It can also cause numbness which can lead to ulceration of the feet.

If the nerves in your digestive system are affected, you may experience nausea, vomiting, diarrhoea or constipation.

Retinopathy

Retinopathy is where the retina (the light-sensitive layer of tissue) at the back of the eye is damaged. Blood vessels in the retina can become blocked or leaky, or can grow haphazardly. This prevents light from fully passing through to your retina. If it is not treated, it can damage your vision.

Annual eye checks are usually organised by a regional photographic unit. If significant damage is then detected, you may be referred to an ophthalmologist.

The better you control your blood sugar levels, the lower your risk of developing serious eye problems.

Diabetic retinopathy can be managed using laser treatment if it is caught early enough. However, this will only preserve the sight you have; it will not improve it.

Kidney disease

If the small blood vessels of your kidney become blocked and leaky, your kidneys will work less efficiently. It is usually associated with high blood pressure, and treating this is a key part of management.

In rare, severe cases, kidney disease can lead to kidney failure and a kidney replacement treatment with dialysis (or sometimes kidney transplantation) will be necessary.

Foot problems

Damage to the nerves of the foot can mean small nicks and cuts are not noticed and this, in combination with poor circulation, can lead to a foot ulcer developing. About 1 in 10 people with diabetes get a foot ulcer, which can cause serious infection.

If you have diabetes, look out for sores and cuts that do not heal, puffiness or swelling and skin that feels hot to the touch. You should also have a foot examination at least once a year.

If poor circulation or nerve damage is detected, check your feet every day and report any changes to your doctor, nurse or podiatrist (foot care specialist).

Sexual dysfunction

In men with diabetes, particularly smokers, nerve and blood vessel damage can lead to erection problems. This can usually be treated with medication.

Women with diabetes may experience:

- a reduced sex drive
- reduced pleasure from sex
- vaginal dryness
- a reduced ability to orgasm
- pain during sex

If you experience a lack of vaginal lubrication, or you find sex painful, you can use a vaginal lubricant or a water-based gel.

Miscarriage and stillbirth

Pregnant women with diabetes have an increased risk of miscarriage and stillbirth. If your blood sugar level is not carefully controlled during the early stages of pregnancy, there is also an increased risk of the baby developing a birth defect.

Pregnant women with diabetes will usually have their antenatal check-ups in hospital or a diabetic clinic, ideally with an obstetrician (a doctor who specialises in pregnancy care).

This allows your care team to keep a close eye on your blood sugar levels and control your insulin dosage more easily, as well as monitoring the growth and development of your baby.

Living with diabetes

If you have type 2 diabetes, you will be advised to look after your health carefully. Caring for your health will also make treating your diabetes easier and minimise your risk of developing complications.

It helps to eat a healthy, balanced diet, stop smoking (if you smoke), don't drink or drink alcohol in moderation and take plenty of regular exercise.

If you have type 2 diabetes, you will need to look after your health very carefully.

Caring for your health will make treating your diabetes easier and minimise your risk of developing complications of diabetes.

Self care

Self care is an integral part of daily life. It means you take responsibility for your own health and wellbeing with support from those involved in your care.

Self care includes things you do each day to stay fit, maintain good physical and mental health, prevent illness or accidents, and effectively deal with minor ailments and long-term conditions.

People living with long-term conditions can benefit enormously if they receive self care support. They can live longer, experience less pain, anxiety, depression and fatigue, have a better quality of life and be more active and independent.

Regular reviews

As type 2 diabetes is a long-term condition, you will be in regular contact with your diabetes care team. Developing a good relationship with the team will enable you to freely discuss your symptoms or any concerns you have.

The more the team knows, the more they can help you. Your diabetes care team will also need to check your eyes, feet and nerves regularly because they can also be affected by diabetes.

Healthy eating

It is not true that if you have diabetes you will need to eat a special diet. You should eat a healthy diet high in fibre, fruit and vegetables and low in fat, salt and sugar.

Different foods will affect you in different ways, so it is important to know what to eat and when to get the right amount of glucose for the insulin you are taking. A diabetes dietitian can help you work out a dietary plan that can be adapted to your specific needs.

Regular exercise

As physical activity lowers your blood glucose level, it is very important to exercise regularly if you have diabetes.

Like anyone else, you should aim to do at least 150 minutes (2 hours and 30 minutes) of moderate-intensity aerobic activity, such as cycling or fast walking, every week. However, before starting a new activity, speak to your DOCTOR or diabetes care team first.

As exercise will affect your blood glucose level, you and your care team may have to adjust your insulin treatment or diet to keep your blood glucose level steady.

Do not smoke

If you have diabetes, your risk of developing a cardiovascular disease, such as a heart attack or stroke, is increased.

As well as increasing this risk further, smoking also increases your risk of many other serious smoking-related conditions, such as lung cancer.

If you want to give up smoking, your DOCTOR will be able to provide you with advice, support and treatment to help you quit.

Limit alcohol

If you have diabetes, drink alcohol in moderation (if you drink), and never drink alcohol on an empty stomach. Depending on the amount you drink, alcohol can cause either high or low blood glucose levels (hyperglycaemia or hypoglycaemia).

Drinking alcohol may also affect your ability to carry out insulin treatment or blood glucose monitoring, so always be careful not to drink too much. The recommended daily alcohol limit is 3-4 units for men and 2-3 units for women.

Keeping well

People with a long-term condition, such as type 2 diabetes, are encouraged to get a flu jab each autumn to protect against flu (influenza). A pneumococcal vaccination, which protects against a serious chest infection called pneumococcal pneumonia, is also recommended.