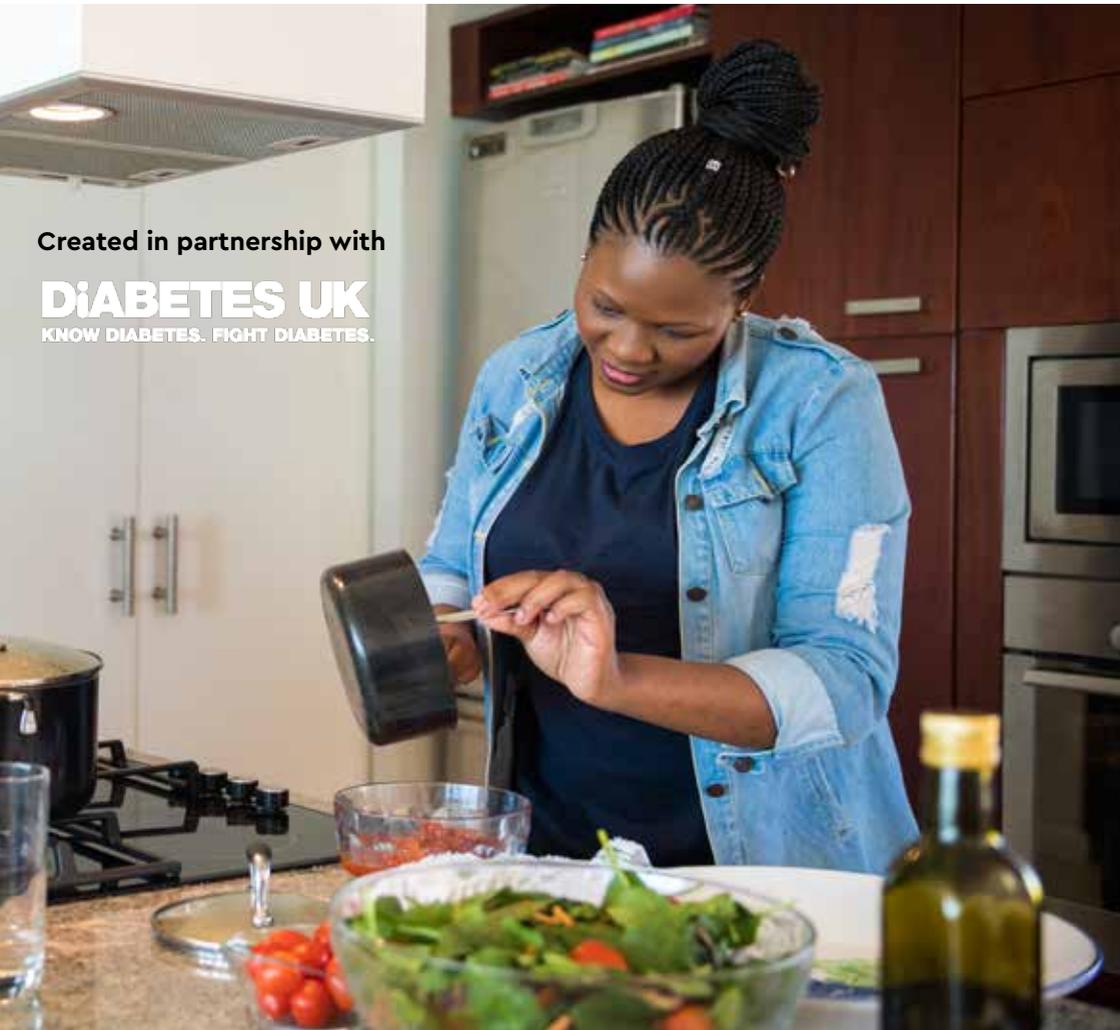


Diabetes and cancer treatment

Created in partnership with

DIABETES UK
KNOW DIABETES. FIGHT DIABETES.



About this booklet

This booklet is about diabetes and cancer treatment. It is for anyone diagnosed with cancer who also has diabetes. You may also want to read this booklet if you have been told your cancer treatment may increase your risk of developing diabetes. We have written it in partnership with Diabetes UK.

The booklet explains how some tests used to diagnose cancer and some cancer treatments can affect your diabetes. They can make it more difficult to control your blood sugar level. The booklet also has tips to help you cope with side effects of cancer treatment if you have diabetes. We hope it helps you deal with some of the questions or feelings you may have.

We cannot give advice about the best treatment for you. You should talk to your doctor, who knows your medical history.

How to use this booklet

This booklet is split into sections to help you find what you need. You do not have to read it from start to finish. You can use the contents list on page 3 to help you.

It is fine to skip parts of the booklet. You can always come back to them when you feel ready.

On pages 104 to 113, there are details of other organisations that can help. There is space to write down your blood sugar level on page 23. There is also space to write down any questions or notes on pages 114 to 116.

Quotes

In this booklet, we have included quotes from people who have had diabetes and cancer, which you may find helpful. These are from people who have chosen to share their story with us. To share your experience, visit [macmillan.org.uk/shareyourstory](https://www.macmillan.org.uk/shareyourstory)

For more information

We have produced this booklet in partnership with Diabetes UK. It does not explain diabetes in detail. For more information about diabetes, contact Diabetes UK. You can call their helpline on **0345 123 2399 (0141 212 8710** in Scotland), Monday to Friday, 9am to 6pm, or visit [diabetes.org.uk](https://www.diabetes.org.uk)

If you have more questions or would like to talk to someone, call the Macmillan Support Line free on **0808 808 00 00**, 7 days a week, 8am to 8pm, or visit [macmillan.org.uk](https://www.macmillan.org.uk)

If you would prefer to speak to us in another language, interpreters are available. Please tell us, in English, the language you want to use.

If you are deaf or hard of hearing, call us using NGT (Text Relay) on **18001 0808 808 00 00**, or use the NGT Lite app.

We have some information in different languages and formats, including audio, interactive PDFs, easy read, Braille, large print and translations. To order these, visit [macmillan.org.uk/otherformats](https://www.macmillan.org.uk/otherformats) or call **0808 808 00 00**.

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What is diabetes?

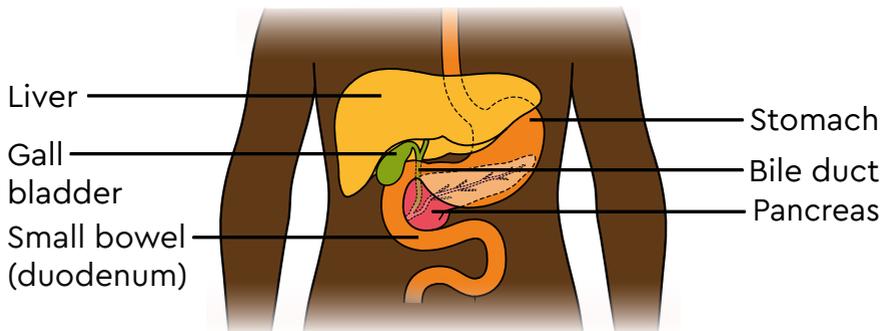
Diabetes is a condition where there is too much glucose in the blood. Glucose is a type of sugar.

The amount of sugar in the blood is controlled by a hormone called insulin. Diabetes can happen when:

- the body does not produce enough insulin
- the insulin the body produces is not effective
- the body cannot produce any insulin at all.

We need insulin to live. Insulin is made by the pancreas. Insulin allows the glucose in the blood to enter cells and fuel the body.

Position of the pancreas



There are 2 main types of diabetes:

- **type 1 diabetes**, where the pancreas does not make any insulin
- **type 2 diabetes**, where the pancreas does not make enough insulin or the insulin it makes does not work properly – this is called insulin resistance.

Type 2 diabetes is a lot more common than type 1. About 9 in 10 people with diabetes (90%) have type 2. Diabetes UK has more information about causes of diabetes (pages 102 to 103).

Signs and symptoms of diabetes

When too much sugar stays in the blood, the body cannot use it for energy. Having too much sugar is called hyperglycaemia. It can start to cause problems. The body gets rid of the extra sugar by passing it out in pee (urine). Common symptoms of high blood sugar include:

- feeling very tired (fatigue)
- peeing more often, especially at night
- being really thirsty
- cuts and wounds that take a long time to heal
- genital itching or thrush infections
- losing weight without trying
- blurred eyesight.

It is important to talk to your cancer doctor or GP straight away if you think you have symptoms of diabetes.



Using a blood glucose monitor

Treating diabetes

The aim of diabetes treatment is to keep the amount of sugar in your blood as normal as possible. This helps to manage symptoms and prevent any long-term complications of diabetes. Type 1 and type 2 diabetes are treated in different ways.

Type 1 diabetes

Type 1 diabetes is treated with insulin. Insulin is given by injections using an insulin pen, or with an insulin pump. An insulin pump is a small electronic device that gives regular doses of insulin throughout the day and night.

Keeping to a healthy weight, eating a balanced diet and being physically active are also important. We have more information in our booklets **Healthy eating and cancer** and **Physical activity and cancer** (page 96).

Type 2 diabetes

Type 2 diabetes can be managed by:

- making lifestyle changes, such as eating a balanced diet, being physically active and keeping to a healthy weight
- medication – tablets or injections which may include insulin.

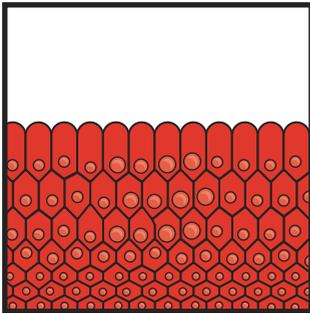
Many people with type 2 diabetes have a combination of treatments. Some people have been able to put their type 2 diabetes into remission by losing weight. Diabetes remission in people with type 2 diabetes means that their blood sugar levels are below the diabetes range without needing to take any diabetes medication.

What is cancer?

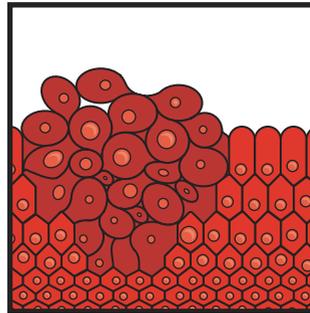
Cells are tiny building blocks that make up the body's organs and tissues. Cells receive signals from the body, telling them when to grow and when to divide to make new cells. This is how our bodies grow and heal. These cells can become old, damaged or no longer needed. When this happens, the cell gets a signal from the body to stop working and die.

Sometimes these signals can go wrong, and the cell becomes abnormal. The abnormal cell may keep dividing to make more and more abnormal cells. These can form a lump, called a tumour.

Abnormal cells forming a tumour



Normal cells



Cells forming a tumour

Not all tumours are cancer. Doctors can tell if a tumour is cancer by taking a small sample of cells from it. This is called a biopsy. The doctors examine the sample under a microscope to look for cancer cells.

A tumour that is not cancer (a benign tumour) may grow, but it cannot spread to anywhere else in the body. It usually only causes problems if it grows and presses on nearby organs.

A tumour that is cancer (a malignant tumour) can grow into nearby tissue.

Sometimes cancer cells spread from where the cancer started (the primary site) to other parts of the body. They can travel around the body in the blood or through lymph fluid which is part of the lymphatic system. When these cancer cells reach another part of the body, they may grow and form another tumour. This is called a secondary cancer or a metastasis.

Some types of cancer start from blood cells. Abnormal cells can build up in the blood, and sometimes the bone marrow. This is where blood cells are made. These types of cancer are sometimes called blood cancers.

Your data and the cancer registry

When you are diagnosed with cancer, some information about you, your diagnosis and your treatment is collected by a cancer registry (page 113).

The information is used to help understand cancer in the UK better. This is important for planning and improving health and care services. It can be used to ensure that people living with cancer get the best possible care and support.

Hospitals automatically send information to the cancer registry. There are strict rules about how the information is stored, accessed and used. Information about health is sensitive, so by law it has to be kept under the highest levels of security.

If you have any questions, talk to your doctor or nurse. If you do not want your information included in the registry, you can contact the cancer registry in your country to opt out.





Managing your cancer and diabetes

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Managing diabetes during cancer treatment

About 1 in 5 people with cancer (20%) also have diabetes. But the actual number may be higher.

You may need some extra support to help you manage diabetes during cancer treatment. Before your cancer treatment starts, it is important to contact the health professional who normally helps you manage your diabetes. This may be the diabetes team or your GP. Ask your cancer team if they are going to pass on your treatment information to your diabetes team or GP, or if you will need to do it.

Some cancer treatments can affect the amount of sugar in your blood. You and your cancer team may need to talk about how this could affect your treatment plan. You may understand how to manage your diabetes better than your cancer team. It is important that you are involved in decisions about your treatment plan. Make sure you tell your cancer team about any preferences and what you need.

During cancer treatment, you may need to change your diabetes medicine to manage the amount of sugar in your blood. Short-term increases in blood sugar should not cause long-term complications. But it is important you are in regular contact with your diabetes team during your cancer treatment. This means they can support you as your diabetes management may change regularly.

Managing your blood sugar in the long term reduces your risk of complications such as damage to the heart, kidney, eyes and nerves. Some cancer treatments can also cause these problems, or make them worse. If you have diabetes, you will often need extra tests to check your health, and closer monitoring during your cancer treatment.

If you have lost weight before you start cancer treatment, the medication you take to lower your blood sugar may need to change. Your diabetes team can give you advice about this.

Blood sugar levels

While you are having cancer treatment, it is important to try to keep your blood sugar level in a safe range. The diabetes team can tell you what the safe range is for you. This may be called your target range.

Keeping within this range has been shown to:

- reduce the risk of infections and other side effects from cancer treatment
- improve overall well-being
- increase the effectiveness of cancer treatment.

During your cancer treatment, your blood sugar level may be higher. This can be caused by the treatment or by medication, such as steroids, which may be given as part of your cancer treatment. Less often, the treatment or side effects of treatment can cause a low blood sugar.

It is important to tell your diabetes team and your cancer doctor or nurse if your blood sugar level is not within your target range. They will give you advice on how to manage this.

Symptoms of a high blood sugar level (a hyper)

A high blood sugar level may also be called hyperglycaemia, or a hyper. A hyper can happen because the body cannot produce enough insulin to process the sugar in the blood. Or it cannot use the insulin effectively.

It is important to avoid a high blood sugar level because it can make you feel unwell and cause other problems. Symptoms of high blood sugar include:

- feeling very thirsty
- passing urine more often or a new need to pee during the night
- feeling very tired (fatigue)
- blurred eyesight
- headaches
- confusion
- weight loss
- feeling sick
- recurring infections, including bladder or skin infections and thrush.

Managing a high blood sugar level

If your blood sugar level is slightly high for a short time, emergency treatment is not usually needed.

Make sure you are taking your diabetes medicines as your doctor has told you to. Try to drink plenty of sugar-free fluids to prevent dehydration.

If you are feeling unwell, especially if you are vomiting, you should:

- follow any sick day rules you have been given (pages 64 to 65)
- contact your diabetes team straight away for advice.

If your blood sugar level continues to rise, you may need to act fast to avoid developing diabetic ketoacidosis (DKA) – pages 24 to 25. You will need to check your blood sugar level regularly.

If your blood sugar level is 15mmol/l or more, you should check your blood or urine for ketones (or 13mmol/l or more if you use an insulin pump). Your diabetes team may have given you different targets.

If there are ketones, it is likely that you do not have enough insulin in your body. If you find ketones, contact your diabetes team. You may need to increase your dose or take an extra dose. They can advise you about what to do. If you are not able to speak to someone straight away and your ketone levels are high, go to your local accident and emergency department (A&E).

Symptoms of a low blood sugar level (a hypo)

Less often, treatment or its side effects can mean your blood sugar level goes too low. This is called hypoglycaemia, or a hypo.

Symptoms of a low blood sugar level include:

- sweating
- feeling anxious and irritable
- fatigue
- feeling weak and shaky
- looking pale
- being hungry
- having a faster heart rate than normal.

Managing a low blood sugar level

You must do something as soon as you notice symptoms of a hypo or if a blood test has shown your blood sugar level is too low.

You should treat a hypo straight away. You can do this by eating or drinking 15 to 20 grams of a fast-acting carbohydrate such as:

- 5 glucose or dextrose tablets
- 4 jelly babies
- a small carton or glass of pure fruit juice
- a small glass of a sugary (non-diet) drink
- glucose gel such as GlucoGel® or RapiLOSE® Gel
- glucose juice such as Lift Shots.

After 10 to 15 minutes, check your blood sugar level again to make sure it is back above 4mmol/l. If it is still less than 4, take some more fast-acting carbohydrate and check again after 10 minutes.

After a hypo, you may need to eat or drink a bit more. This is to stop your sugar level going down again. Try to eat 15 to 20g of a slower-acting carbohydrate. This could be a sandwich or 2 digestive biscuits.

You should also tell your diabetes team that you have had a hypo. Your diabetes team can give you advice about how to manage hypos and will review your diabetes medicines.

Blood test to check your HbA1c

Ask your cancer doctor or nurse about having a blood test called an HbA1c before you start your treatment. They may also do this test regularly during your treatment. An HbA1c test shows your average blood sugar level over the last 2 to 3 months. This helps doctors to monitor how the treatment is affecting your blood sugar level.

Monitoring your blood sugar level

Blood sugar levels can be checked quickly and simply using a blood glucose monitor. It tests the sugar level from a drop of blood from your finger. Some people may already use a continuous glucose monitor.

If you do not already monitor your blood sugar level, you will need to start while having cancer treatment. Your cancer doctor or diabetes team can give you advice before you start treatment. If you do not already have monitoring equipment, ask your diabetes team for some.

The diabetes team can tell you:

- how to check your blood sugar level
- how many times to check a day
- the sugar level you should be aiming for.

The aim is to keep your blood sugar level in an acceptable range during your cancer treatment. Your diabetes team or GP can advise what your personal target range is. You should tell your cancer doctor or nurse if you are getting any symptoms of high or low blood sugar (pages 18 to 21). You can also get advice from your diabetes team. Your diabetes medicines should be reviewed as soon as possible.

Managing blood sugar during cancer treatment can sometimes be more difficult. Having a slightly higher blood sugar level (around 12mmol/l) is not usually a big problem if it is only for a short time. But very high blood sugar (around 20mmol/l or over) can be a problem. They can cause symptoms such as being more thirsty and needing to pee a lot. This can lead to dehydration.

You should contact the professional who usually helps you manage your diabetes. This may be a diabetes team or your GP. You can call them to talk about any worries you have about your diabetes.

We have more information about how different cancer treatments might affect your diabetes (pages 38 to 60).

You may find it helpful to record your blood sugar level in the table opposite.

Ketones

If your blood sugar level is very high, your doctor may advise you to check your blood or urine for ketones.

Ketones are chemicals that can build up in the body when there is a severe lack of insulin. They are toxic to the body, and large amounts can be very serious. A high level of ketones in the body is called diabetic ketoacidosis (DKA). If you have type 1 diabetes, you are more at risk of DKA than people with other types of diabetes. But if you have type 2 and use insulin, you should still look out for the signs of DKA. DKA is very serious, and needs to be treated straight away.

Your doctor may suggest you check your blood or urine for ketones (page 25) while having treatments that increase your blood sugar level, such as steroids. Contact your doctor straight away if you have ketones in your blood or urine.

If you suspect DKA, go to your nearest A&E straight away. You will need hospital treatment. If you are not sure whether you need to go to hospital, call your GP or diabetes team straight away.

Symptoms of DKA

It is important to be aware of the symptoms of DKA. Contact your doctor straight away if you have these symptoms:

- high blood sugar level
- being very thirsty
- needing to pee more often
- feeling tired and sleepy
- feeling confused
- blurred eyesight
- stomach pain
- feeling or being sick
- sweet or fruity-smelling breath (like nail polish remover or pear drop sweets)
- passing out (fainting).

Testing for ketones

The best way to check your ketone levels is using a ketone monitor to check your blood. Checking blood for ketones will give you real-time results, just like when you check your blood sugar level. A urine check will tell you what your ketone levels were a few hours ago. A ketone monitor works in a similar way to a blood sugar monitor.

There are different types of ketone monitors available. Speak to your doctor about which one is best for you. If you have type 1 diabetes, you usually get a ketone monitor for free on the NHS.

Hyperosmolar hyperglycaemic state (HHS)

This can happen to people with type 2 diabetes who have very high blood glucose levels (often over 40mmol/l). It can develop over weeks. It can be caused by a combination of factors – for example, having an infection and being dehydrated.

Symptoms of HHS include:

- peeing often
- thirst
- nausea
- dry skin
- feeling very confused
- in later stages, drowsiness and a gradual loss of consciousness.

Contact your diabetes team if your blood glucose levels remain high (more than 15mmol/l). They can give you advice about what to do, including managing your medication. Try to drink plenty of unsweetened fluids. You may need to test your blood sugar level more regularly.

If you are unable to eat, replace meals with snacks and drinks containing carbohydrates. HHS can be a life-threatening emergency that needs to be treated in hospital.

Managing your diabetes during Ramadan and Eid

If you are thinking about fasting during Ramadan, it is important to talk to your diabetes team beforehand. They can discuss how fasting could be a risk to your health and how to reduce risks. They can give you advice on how to manage your blood sugar during these times.

You will need to check your blood sugar level more often than you normally would during Ramadan and Eid. This is especially important if you are taking insulin or having cancer treatment that can affect your blood sugar.

Checking your blood sugar level does not break the fast. But you must break the fast if your blood sugar level is too high or too low. If you are worried about this, talk to your religious leader before you start your fast.

Your diabetic team or GP can give you advice on the types of foods that can help to manage your blood sugar during Ramadan and Eid.

Diabetes UK has more information about diabetes and Ramadan on its website. Visit [diabetes.org.uk/guide-to-diabetes/managing-your-diabetes/ramadan](https://www.diabetes.org.uk/guide-to-diabetes/managing-your-diabetes/ramadan)

Going into hospital

You may need to spend some time in hospital during or after your cancer treatment. This will depend on:

- the type of cancer you have
- the treatment that is planned.

You may only have to stay in hospital for a few hours. But depending on your situation, you may have to stay longer.

You will usually know when you are going into hospital. This means you can plan to make sure that you have everything you need to manage your diabetes.

Your blood sugar level may be higher or lower than usual while you are in hospital. This can happen because you are being less active and eating different food. It can also be caused by the stress of being in hospital or if you have an infection. Your blood sugar will be checked regularly. Your doctors may need to adjust your diabetes treatment. They will talk to you about this first.

Tell the hospital staff about your diabetes when you first meet. It is important that they know about your diabetes care. If you cannot give them this information, they can contact your GP or diabetes team if you have one. You may also find it helpful to talk about your care with the hospital's diabetes team, if there is one.

Being in hospital and having cancer treatment can make it more difficult to manage your diabetes. If you need help managing your blood sugar, it is important to ask the team looking after you.

Diabetes equipment

When you go into hospital, you should take your own diabetes equipment. This could include your:

- glucose monitor
- insulin pen
- insulin pump, if you use one.

If you feel well enough, you can usually carry on testing and managing your own diabetes while you are in hospital. If you are not feeling well enough or need some support, the nurses can help you.

Diabetes medicines

If you are admitted to hospital overnight or for longer, take your diabetes medicines with you and any other medicines you need. The hospital pharmacy should be able to give you the medicines you normally take. Or they may give you something similar. Not every ward or unit will have all the different medicines used to treat diabetes. This means it can sometimes take a while to get them.

You may only spend a few hours in hospital at a time – for example, if you are having chemotherapy in a day unit or going for radiotherapy treatment. It is a good idea to take some food and your medicines with you. Try to keep to your normal routine as much as you can.

Tests and scans

There are lots of different tests and scans used to help diagnose cancer. Some of these tests are also used during treatment and as part of your follow-up care. Many of these tests will not affect your diabetes. But you should contact the hospital before each test and tell them that you have diabetes. They can give you advice. If you are not following your usual diet, speak to your diabetes team to check if any changes are needed to your diabetes medication.

Some tests will take a few hours. When you contact the hospital, ask how long you will need to be there. You can then plan ahead, so that you can bring everything you need. This could include your diabetes equipment and some food.

Some tests need a bit more planning. You may need to follow a careful diet so that you have an empty bowel. Or you may need to stop eating for a few hours before. The hospital staff will tell you how to prepare for the tests. You may need to go into hospital the day before.

Not eating before a test

You may be asked not to eat for a few hours before some tests. This could be before an MRI or CT scan.

Not eating may be a problem for some people with diabetes. Because of this, you may have a shorter time when you cannot eat than people who do not have diabetes.

The hospital staff will tell you when you can eat and when to take your diabetes medicines. It is important to follow this advice carefully. They may also be able to give you an early-morning appointment. This will help shorten the amount of time when you cannot eat.

Most people manage to keep their blood sugar level in a safe range with advice and support. But if you notice symptoms of low blood sugar (page 20), the fastest way to treat this is to eat or drink 15 to 20 grams of fast-acting carbohydrate straight away. Take hypo treatment with you when you go to the hospital. Depending on the test, you may then need to rearrange the appointment for a different day.

If you use an insulin pump or glucose monitors

CT and MRI scanners and some x-rays can affect the way your insulin pump works. If you use an insulin pump, it may need to be removed before the scan or x-ray starts. A few days before the scan, you should tell the scanning or x-ray staff (radiographers) that you have an insulin pump. If you need to have radiotherapy treatment, you should also tell the therapeutic radiographers that you have an insulin pump.

Some scans and x-rays take more than 1 hour. If your pump is removed, you may need to have injections of a short-acting insulin during this time. Ask the staff how long your scan or x-ray will last. This will help you plan how to manage your diabetes. Your diabetes team can also give you advice.

If you use a continuous glucose monitor (CGM) or flash glucose monitor, whether you have to remove it depends on different things. This includes which type you are using, the scan or x-ray you are having, and where on the body you are being scanned. Your diabetes team and cancer team can give you advice about this and how to monitor and manage your blood sugar level.

Having a colonoscopy or barium x-ray

A colonoscopy and barium x-ray look at the lining of the bowel from the inside. The bowel needs to be completely empty, so you will need to follow a careful diet before the test. You will not be able to eat for a few hours before the test. You will also need to take a laxative.

The radiographers doing the test can give you information on managing your blood sugar before, during and after the test. It is important to follow this advice. You can also contact your diabetes team for advice on how to manage your blood sugar level for this test.

You should be given a morning appointment for these tests. This helps to shorten the amount of time you cannot eat and drink. Contact the hospital if you have been given an afternoon appointment. It might be possible to change the time.

Having a PET scan

A PET scan uses low-dose radioactive sugar to measure the activity of cells in different parts of the body. A PET scan is often combined with a CT scan (PET-CT).

About 2 hours before the scan, you have an injection of a sugary fluid that has a small amount of radiation. The amount of radioactive sugar you are given is small. It should not affect your diabetes.

Cancer cells are usually more active than normal cells, so they take up more of the radioactive sugar. The sugar helps the cancer cells show up on the scan.

For the PET scan to work well, your blood sugar needs to be within a certain range. Aim for a stable blood glucose within the range of 4 to 11mmol/l. But your diabetes team may set you a different range that is suitable for you. If your blood sugar level is too high, you may have to have the scan on another day. You will have your blood sugar level checked before your PET scan.

If the blood sugar level is outside the range, it can affect the test:

- If your blood sugar level is high, the cancer cells may not take up (absorb) much of the radioactive sugar. This is because they already have enough sugar. This means they will not be seen on the scan.
- If the amount of insulin in your blood is high, your normal cells will absorb more of the radioactive sugar. This means the cancer cells absorb less sugar and do not show up on the scan as clearly.

The staff in the scanning department will give you information about how to prepare before the scan. They will tell you:

- what and when to eat
- which diabetes medicines to take in the days before the scan
- what food and diabetes medicines you should take with you to the hospital.

Scans using a dye (contrast)

Some types of scan include having an injection of a dye. This dye makes some areas of the body show up more clearly. The dye is called a contrast. It is used in different types of scan, including:

- a CT scan
- an MRI scan
- an IVU (intravenous urogram) – a test to look at the urinary system
- a venogram or an angiogram – tests to look at the blood vessels.

Contrast can temporarily affect how your kidneys work. This can be a problem if you take the diabetes medicine metformin. If you do, you will be asked not to take it on the day of your appointment and for about 2 days afterwards. You will be given information about when to take it and how to manage your blood sugar during this time.



Having a CT scan



How treatment can affect your diabetes

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Steroids

Steroids (also called corticosteroids) are naturally produced in the body. They help control the way the body works, including how it uses food. Steroids are also drugs often used for cancer treatment. They can be given as tablets, injections or as a drip (infusion).

Steroid drugs can be used:

- as part of your treatment, to help destroy some types of cancer cell and make chemotherapy work better
- to help reduce an allergic reaction to certain chemotherapy drugs (pages 42 to 45)
- in small amounts as anti-sickness drugs
- to treat the side effects of some cancer drugs, such as immunotherapy drugs (pages 54 to 58)
- to improve your appetite.

How steroids can affect your diabetes

Steroids can increase blood sugar in people with or without diabetes. This is called steroid-induced hyperglycaemia.

While you are taking steroids, it might be more difficult to manage your blood sugar level. This will depend on the type of diabetes you have and how you normally manage your diabetes. It also depends on the following:

- which steroids you are taking
- the dose – the higher the dose, the more likely your blood sugar will increase
- the time of day you take them
- how the steroids are given – your blood sugar may rise faster with a steroid infusion (drip) or injection than with tablets
- how long you take steroids for.

“ It was confirmed that I was a diabetic and it could have been, they thought, due to very high doses of steroids. I was then given treatment for diabetes. ”

Marie, diagnosed with chronic lymphocytic leukaemia and diabetes

Managing your blood sugar level when taking steroids

Before you start taking steroids, talk to your doctors about how to keep your blood sugar level within your target range.

It is very important that your blood sugar level is checked regularly during steroid treatment. You will have your blood sugar tested when you go to the hospital.

If you do not already check your blood sugar level at home, you will need to start checking it. Make sure you have blood-testing equipment at home. If you already check your blood sugar level, you may need to check it more often.

Keep a record of your blood sugar level. This will help you see if there is a pattern. Talk to your cancer doctor, diabetes team or GP as soon as possible if any of the following happen:

- Your blood sugar level is high (12mmol/l or more) on more than 2 or 3 occasions.
- Your blood sugar is more than 20mmol/l. Contact your doctors straight away and check for ketones. Ketoacidosis (DKA) is an emergency. We have more information on what to do if you think you may have DKA (pages 24 to 25).
- You feel unwell or develop any of the symptoms of high blood sugar (page 18).
- You are concerned about your blood sugar level.

It is important to contact your diabetes team regularly during cancer treatment. This is because your diabetes management may need to change regularly during your treatment.

If your blood sugar level stays high while you are taking steroids, your cancer doctor or specialist nurse may change the dose of the steroids and the time you take them. You may also need to change the way you manage your diabetes. Your diabetes team will advise you how to do this. For example:

- if you use your diet to manage your blood sugar, you may need to start taking tablets
- if you take tablets, you may need to increase the dose or start using insulin for a short time
- if you use insulin, you may need to increase the dose or use a different type of insulin.

Correction doses of insulin can be used to reduce very high blood sugar. These may not work as well when you are taking steroids. Contact your diabetes team first for advice. They may suggest you take more insulin.

Never stop taking your steroids without talking to your cancer doctor first.

The dose of steroids you take as part of your cancer treatment will usually be reduced and stopped.

Chemotherapy

Chemotherapy uses anti-cancer (cytotoxic) drugs to destroy cancer cells. You may have 1 chemotherapy drug or a combination of different drugs. Chemotherapy is usually given as a few sessions of treatment, with rest periods in between.

How chemotherapy can affect your diabetes

When you have chemotherapy, your blood sugar level may get too high or too low. This is because of the side effects of chemotherapy, such as sickness, diarrhoea and loss of appetite.

Some chemotherapy drugs, such as asparaginase and busulfan, can cause your blood sugar level to rise. Your cancer doctor, specialist nurse or specialist pharmacist will tell you more about the drugs you will take. Chemotherapy is often given with steroids.

Managing your blood sugar level when having chemotherapy

Before you start chemotherapy, talk to your doctors and nurses about any side effects you may have. Ask them for information about the best way to manage your diabetes during treatment. This is particularly important if your treatment includes taking steroids.

You may need to check your blood sugar level more often than normal. You may need to make the following changes to your diabetes treatment. Your diabetes team will help you to do this.

- If you use insulin, you may need to change the dose or type of insulin you use.
- If you manage your diabetes with tablets, your specialist may suggest changing the dose. They may ask you not to take the tablets on the day of your chemotherapy treatment.
- If you manage your diabetes with your diet, you may still find that your blood sugar level increases. You may need to start diabetes medication.

You should tell your diabetes team if you are not managing to eat or drink as much as usual. This may be because you feel sick or have a sore mouth. Also tell them if you develop diarrhoea. We have more information about managing sickness and about sick day rules when you are feeling unwell (pages 64 to 69).

It is important to tell doctors how well you are managing to control your blood sugar level during your chemotherapy. If you are finding it difficult, your cancer doctor may adjust your diabetes medication after speaking to the diabetes team. Your doctors will talk to you before making any changes. You should always check your blood sugar if you feel unwell. Talk to your cancer doctor or specialist nurse if you are not sure.

You should talk to your doctor if your blood sugar level is:

- always 10mmol/l or higher, and you feel unwell
- less than 4mmol/l on 2 or more occasions.



Having chemotherapy

Damage to the nerves (peripheral neuropathy)

Some chemotherapy drugs can damage the nerves in your body. This can lead to pain and a change in sensation called peripheral neuropathy. The pain can sometimes be worse if the nerves are already damaged by diabetes. Peripheral neuropathy caused by chemotherapy does not usually last long, but it can sometimes be permanent.

The chemotherapy drugs most likely to cause peripheral neuropathy are:

- platinum-based drugs – cisplatin, carboplatin and oxaliplatin
- taxanes – docetaxel and paclitaxel
- vinca alkaloids – vinblastine, vincristine and vinorelbine.

Talk to your cancer doctor or specialist nurse if you are worried about peripheral neuropathy. They can give you more information about your treatment and advice on the best way to manage any pain. Your GP can also give you advice and support.

We have more information about chemotherapy drugs on our website. Visit [macmillan.org.uk/treatments-and-drugs](https://www.macmillan.org.uk/treatments-and-drugs)



Radiotherapy

Radiotherapy uses high-energy rays called radiation to treat cancer. Treatment is usually given every day from Monday to Friday, with a rest at the weekend. There are different types of radiotherapy.

A course of radiotherapy is usually given over 3 to 8 weeks. But some people may only need 1 or 2 treatment sessions. Radiotherapy is sometimes given with chemotherapy. This is called chemoradiation.

How radiotherapy can affect your diabetes

During and straight after radiotherapy, your blood sugar level may rise. This happens because the body releases extra sugar to help you cope with effects of the treatment.

Depending on your diabetes treatment, your blood sugar may drop after radiotherapy.

Tiredness (fatigue) is a common side effect of radiotherapy. It can last for weeks or months after treatment. If you are very tired, you may not be as active as you normally are. This can affect your blood sugar level. If you can, try to do 30 minutes of gentle to moderate exercise a day. Your therapeutic radiographers can give you more advice about managing side effects of radiotherapy and exercising while having treatment.

Depending on the part of your body having radiotherapy, it can cause:

- sickness
- diarrhoea
- problems with eating and drinking.

If any of these happen, it can be more difficult to manage your blood sugar level. You may also become dehydrated. If you are feeling unwell, you should follow the sick day rules (pages 64 to 65).

Tell your doctor, diabetes team or therapeutic radiographer straight away if you are feeling unwell, have diarrhoea or sickness, or cannot eat or drink normally. Diabetes UK has information about managing your diabetes when you are feeling unwell. Visit [diabetes.org.uk/guide-to-diabetes/life-with-diabetes/illness](https://www.diabetes.org.uk/guide-to-diabetes/life-with-diabetes/illness)

Managing your blood sugar level when having radiotherapy

During radiotherapy, it is important to check your blood sugar level more often and tell your doctors what your blood sugar level is. You may need to adjust or change your medicines or insulin. Your diabetes team can give you advice on how to manage your blood sugar.

If you inject insulin, try not to have your injections in the area of skin where you are having radiotherapy.

Surgery

Surgery is one of the main treatments for many cancers. The type of surgery you have, and how it may affect you, depends on the type of cancer.

How surgery can affect your diabetes

Having diabetes may give you a higher risk of problems during and after surgery. For example, any surgical wounds you have may heal more slowly. You are also more likely to get a wound infection if your blood sugar level is not well managed.

Planning your surgery

To help prevent problems, your operation will be carefully planned. You will be closely monitored during and after it. You can reduce the risk of any problems by keeping your diabetes as well managed as possible in the weeks before your operation. Your diabetes team or GP can help you with this.

Before your operation, you will have an appointment at a pre-surgery assessment clinic. This is to talk about the plan for your care. Tell the nurse or doctor that you have diabetes and about any problems you have. Having surgery can be more risky if you have problems because of diabetes. This includes problems with your heart, eyes or kidneys.

If you have lost any feeling in your feet, your cancer doctor or GP may arrange some tests before your surgery. They will explain the tests and why you need them.

The nurse at the pre-surgery assessment will discuss managing your diabetes before your operation (pages 16 to 34). They may also talk to your diabetes team. The advice they give will depend on how you manage your diabetes:

- If you take tablets, you may be asked to stop them for a short time before and after the operation.
- If you take drugs called SGLT2s, you will need to stop taking them 3 days before your surgery. These drugs include canagliflozin, dapagliflozin, empagliflozin and ertugliflozin.
- If you use insulin, you may need to change the dose. You should not stop taking insulin. If you use a pump or a continuous glucose monitor, your doctor, specialist nurse or diabetes team will explain how this will be managed.

Ask your doctors or specialist nurse for written information so you know exactly what to do and when. You could also speak to a pharmacist about your medicines.

The day of your operation

You are usually admitted to hospital on the morning of your operation. Sometimes you may be asked to go in the day before. This is so that the nurses can monitor your blood sugar level. They may also measure your ketone levels (page 24). Sometimes you may need to have a drip (infusion) of sugar and insulin to help keep your blood sugar level well managed.

The hospital team will give you information about eating and drinking on the day of your surgery. It is important to follow this information carefully. Where possible, they will try to make sure you are the first person on the operating list for that morning or afternoon. The hospital team will plan the best way to manage your diabetes when you are not eating. They will monitor your blood sugar level regularly. But it is still important to tell them straight away if you have any symptoms of low blood sugar (page 20).

After your operation

You should try to manage your diabetes again yourself as soon as possible after your operation. The hospital team will help you do this. You may have trouble managing your blood sugar at first. This may be because you:

- are not allowed to eat normally
- have less appetite
- are being sick
- are in pain
- are less active than normal
- feel stressed.

The nurses on the ward will check your blood sugar level regularly. You will not have to manage your diabetes yourself until you are well enough. When you are well enough, you can carry on being in charge of your diabetes unless there is a reason you cannot.

Some people will be able to eat soon after their operation. For others, it may take longer. This depends on the type of operation you have. It will also depend on if you had the surgery under general or local anaesthetic. Some people may have a drip of sugar and insulin until they can start eating and drinking again. Your doctor will tell you how soon you can start eating and drinking again. They will also tell you when you should start taking your usual diabetes medicines.

Getting up and about as soon as you can is helpful for your recovery. It can help reduce the risk of complications, such as developing a chest infection or blood clot. Being in bed for long periods of time increases the risk of a bed sore (pressure sore). Pressure sores are injury to the skin and tissue underneath. They are caused by pressure. The nurses will check your skin regularly and tell you how to reduce the risk of any problems.

Moving around can also help to lower your blood sugar. The ward staff will help you if you need support in getting up and moving.

Any stitches, clips or staples in your wound are usually taken out 7 to 10 days after the operation. Or you may have dissolving stitches. The wound may take longer to heal if your blood sugar level is not well managed. The practice nurse at your GP surgery can remove any stitches. Or the ward nurses can arrange a district nurse to visit you if you cannot get out of the house.

If your diabetes is not well managed, you are more at risk of developing an infection. Tell your nurse or doctor straight away if your wound becomes hot, painful, starts to bleed or leak any fluids. Tell them straight away if this happens when you go home.

Hormonal therapy

Hormones are produced naturally in the body. They affect the growth and activity of cells.

Hormonal therapy works by changing the production or activity of some hormones in the body. It is most commonly used to treat breast cancer and prostate cancer. There are different types of hormonal therapy. They are usually given as tablets or injections. You often have hormonal therapy for a few years.

How hormonal therapy can affect your diabetes

Some hormonal therapy drugs can increase your blood sugar level. Your cancer doctor, nurse or pharmacist will explain if the treatment you are having may affect your blood sugar.

These drugs include:

- cyproterone acetate (Cyprostat®)
- degarelix (Firmagon®)
- diethylstilbestrol (Stilboestrol®)
- goserelin (Zoladex®)
- leuprorelin acetate (Prostap®)
- medroxyprogesterone acetate (Provera®)
- megestrol acetate (Megace®)
- triptorelin (Decapeptyl®, Gonapeptyl Depot®).

Other types of treatment called octreotide and lanreotide may also affect blood sugar level. They are used to treat neuroendocrine tumours. They can cause both high and low blood sugar levels.

Your blood sugar usually goes back to normal after the hormonal therapy treatment is finished.

Managing your blood sugar level when having hormonal therapy

During your hormonal therapy treatment, you may need to check your blood sugar level more often than usual. Your diabetes team will monitor you during treatment and give you advice on how to manage your blood sugar. Sometimes, they may suggest changing your insulin or tablet dose.

It is important to tell your doctors about how well you are managing to control your blood sugar level during your treatment.

We have more information about hormonal therapy drugs on our website. Visit [macmillan.org.uk/treatments-and-drugs](https://www.macmillan.org.uk/treatments-and-drugs)



Targeted therapy and immunotherapy

Targeted therapy and immunotherapy are used to treat many different types of cancer. They can be used to:

- control the growth of cancer cells by targeting something that is helping them to grow
- stimulate the immune system to destroy cancer cells.

There are many different targeted therapy and immunotherapy drugs. They can be given by tablet, injection or drip (infusion). A course of treatment may last a few months, but some can last a few years.

The side effects of some drugs can be worse if you have diabetes. Your cancer doctor or specialist nurse can give you more information.

How targeted therapy can affect your diabetes

Some targeted therapy drugs may affect your blood sugar level during treatment. Depending on which drug you are taking, your blood sugar level may get higher or lower. It should return to normal after you stop having targeted therapy treatment.

The targeted therapy drugs sorafenib (Nexavar®) and sunitinib (Sutent®) can lower your blood sugar.

Some targeted therapy drugs can increase your blood sugar level.

These include:

- apelisib (Piqray®)
- bortezomib (Velcade®)
- carbozantinib (Cabometyx®, Cometriq®)
- ceritinib (Zykadia®)
- dabrafenib (Tafinlar®) and trametinib (Mekinist®)
- everolimus (Afinitor®) and temsirolimus (Torisel®)
- gemtuzumab (Mylotarg®)
- idelalisib (Zydelig®)
- lenvatinib (Lenvima®, Kisplyx®)
- nilotinib (Tasigna®) and ponatinib (Iclusig®)
- panitumumab (Vectibix®)
- rituximab (Mabthera®).

Ask your cancer doctor if your treatment may increase your blood sugar level.

Managing your blood sugar level during targeted therapy

During treatment, you may need to check your blood sugar level more often. Sometimes you may need to change your insulin or tablet dose. Your cancer doctor or specialist nurse will help you with this. It is important to tell your doctors if you develop any symptoms of high or low blood sugar (pages 18 to 20).



How immunotherapy can affect your diabetes

Immunotherapy stimulates the immune system to kill cancer cells. This can affect blood sugar level. Your cancer doctor or specialist nurse can give you more information about the possible side effects of the drugs you are having.

Immunotherapy drugs that affect your blood sugars include:

- aldesleukin (Proleukin®)
- interferon (IntronA®, Rogeron-A®)
- ipilimumab (Yervoy®)
- lenalidomide (Revlimid®)
- nivolumab (Opdivo®)
- pembrolizumab (Keytruda®).

Immunotherapy drugs can cause high blood sugar in people who have diabetes. Rarely, they can cause diabetes in people who do not already have it. If this happens, you may need diabetes medication.

It is important to tell your doctor or nurse straight away if you feel unwell or have any symptoms of high blood sugar (page 18). Occasionally, with some immunotherapy drugs, some people can develop ketoacidosis (DKA) which is a serious condition. We have more information about DKA and what to do if you have symptoms (pages 24 to 25).

Managing your blood sugar level when having immunotherapy

During treatment, you will need to check your blood sugar level more often. You may need to change your diabetes treatment. For example, you may have to:

- start using insulin as well as taking tablets
- change the dose of insulin you take
- start taking tablets if your diabetes is managed by diet.

It is important to tell your doctors how well you are managing your blood sugar level during your treatment.

Talk to your cancer doctor or nurse if you do not have diabetes but develop any of its symptoms (page 7) while having targeted therapy or immunotherapy.

We have more information about targeted and immunotherapy drugs on our website. Visit [macmillan.org.uk/treatments-and-drugs](https://www.macmillan.org.uk/treatments-and-drugs)



High-dose treatment and transplants

Some types of cancer are treated using a transplant of stem cells. Stem cells are blood cells at the earliest stage of development.

Treatment involves having high doses of chemotherapy and sometimes radiotherapy. It will often include treatment with steroids. High-dose treatment is used to destroy any remaining cancer cells and increase the chances of curing the cancer. After the treatment, your own stem cells or stem cells from someone else (a donor) will be given back through a drip (infusion). These stem cells then grow and develop in the bone marrow to produce normal blood cells.

You will usually go into hospital for a few weeks while you recover from the high-dose treatment.

How high-dose treatment can affect your diabetes

High-dose treatment can cause severe side effects. These depend on the type of treatment you have.

Your blood sugar level may go up or down because of the side effects of chemotherapy. And it may rise if you are taking steroids.

You may need help managing your diabetes while you are recovering from high-dose treatment. You will need to check your blood sugar more often. And you will probably need to start taking medicines or change the medicines you take. Your cancer doctor or specialist nurse will give you more information.

Clinical trials – research

Clinical trials are a type of medical research involving people. They are important because they show which treatments are most effective and safe. This helps healthcare teams plan the best treatment for the people they care for.

Trials may test how effective a new treatment is compared to the current treatment used. Or they may get information about the safety and side effects of treatments.

Some trials help answer questions about treatments we already use. They may test whether combining treatments is more effective. Or they may research different ways to give a treatment so it works better or causes fewer side effects.

Clinical trials also research other areas of cancer care. These include diagnosis and managing side effects or symptoms.

If you have diabetes, you may not be able to take part in some cancer clinical trials. Your cancer specialist can tell you if you are suitable for a specific trial.

We have more information about cancer clinical trials on our website. Visit [macmillan.org.uk/clinical-trials](https://www.macmillan.org.uk/clinical-trials)



Side effects when you have diabetes

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Managing side effects

Cancer and cancer treatment can cause different side effects. These side effects can affect your diabetes. You may feel sick, have diarrhoea or not manage to eat like you usually do.

It is important to contact to your diabetes team and your cancer team about managing your diabetes when you are having cancer treatment. Tell them if you are unwell. They will give you advice to help you manage your blood sugar. The advice is often called 'sick day rules'. Sick day rules apply when you are feeling unwell for different reasons, not just feeling sick.

Sick day rules

Sick day rules include:

- contact your diabetes team – they will give you advice on how to manage your blood sugar level
- stay hydrated
- keep eating and drinking
- check your blood sugar level regularly
- check for ketones (page 24).

You may be told to keep taking your diabetes medication even if you do not feel like eating. If you are unwell, there are some medicines that you should not take as much of. And there are some you should stop taking. It is important to contact your diabetes team straight away if you are unwell.

If you take insulin, your dose may need to be changed when you are unwell. Talk to your diabetes team for more advice on how to manage your insulin doses when you are unwell.

We have more information about what to do when you are unwell (pages 66 to 83). Diabetes UK also has more information about sick day rules (pages 102 to 103).

When you have diabetes, it is important to be prepared. Follow the advice your diabetes team gives you. You might want to share this information with a friend or family member so they can help you. Contact your diabetes team, who will help you if you have any queries or are unsure about what to do.

It is important that you know the symptoms of both high and low blood sugar levels, and how to manage them (pages 18 to 20).

Feeling sick and being sick

Cancer or its treatments can make you feel sick (nauseous) or be sick (vomit). Physical changes caused by the cancer can cause these side effects too. For example, this might be because of damage to the liver or pressure on the brain. Sometimes anxiety can cause nausea.

Feeling and being sick can be a problem if you have diabetes. It can make your blood sugar level drop. This is because you may be eating less and not absorbing food as usual.

Being sick can lead to dehydration. In some cases, severe dehydration and very high blood sugar can mean you need to go into hospital. Tell your diabetes team or cancer team straight away if you have any symptoms of high or low blood sugar (pages 18 to 20).

Managing sickness

Tell your cancer doctor or specialist nurse straight away if you are feeling sick and cannot eat or drink anything. They can give you medication to help the sickness. There are different types of drugs that help treat sickness. These are called anti-emetics. They can be given in different ways. Your cancer doctor, specialist nurse or pharmacist will give you more information.

If you are having cancer treatment that can cause sickness, you should start taking anti-emetics before your treatment starts. Take them as they are prescribed, even if you are not feeling sick. It is easier to prevent sickness before it starts than to stop it. Tell the doctor if the anti-emetics are not working. They can give you different medicines that may work better.

Tips to help with eating and drinking when you are feeling sick

- Try to stick to what you usually eat. Try to eat the same amount of carbohydrates as normal. But if this is difficult, it is okay to eat foods you would not normally eat.
- You may need to eat little and often.
- Ginger can help reduce sickness. Try drinking ginger tea or eating ginger biscuits.
- Try to keep hydrated even if you cannot eat. Try drinking little and often.
- Fizzy drinks that have gone flat may be easier to drink.

Managing your blood sugar level when feeling or being sick

You will need to take extra care of your diabetes if you are feeling or being sick. Your diabetes team can give you advice to help you manage your blood sugar. They may give you sick day rules to follow (pages 64 to 65).

If you check your blood sugar level at home, you will need to check it more often. This could be every 2 to 4 hours, including during the night. If you do not usually check it at home, it is important that you know the symptoms of a very high blood sugar level (page 18).

Try to keep eating and drinking as normal. It is important to stay hydrated, so have plenty of unsweetened drinks. If you cannot eat much, try snacks or drinks that contain carbohydrates to give you energy.

If you cannot eat without being sick, try to sip sugary drinks, such as fruit juice or non-diet cola or lemonade. You could also suck glucose tablets or sweets like jelly beans. If you cannot drink without being sick, contact the hospital as soon as possible. It is important to prevent dehydration.

If your blood sugar level is high and you use insulin to control your diabetes, it is important to check your blood or urine for ketones (page 24) and follow the advice on managing a high blood sugar level. You may be at risk of ketoacidosis (DKA). DKA is an emergency. We have more information about the symptoms of DKA and what to do if you think you have it on pages 24 to 25.

People with type 2 diabetes can develop hyperosmolar hyperglycaemic state (HHS). We have information about this on page 26.

Your diabetes medication

Keep taking your diabetes medication even if you do not feel like eating. But there are some medicines that you should not take as much of or stop taking altogether. Make sure you contact your diabetes team or a local pharmacist as soon as you are feeling ill. They will give you advice about what to do.

You should stop taking SGLT2i tablets if you become unwell or are in hospital for major surgery. If you take these tablets, you should check your blood sugar level. You should also check for ketones – in your blood rather than your urine, if possible. Contact your healthcare team straight away if you become unwell when taking SGLT2i tablets.

There are different types of SGLT2i tablets. Diabetes UK has a list of all the brand names (pages 102 to 103). Taking these tablets when you are unwell could increase your risk of developing DKA. It is important to know the symptoms to look out for (pages 24 to 25).

If you use insulin, you usually have it before eating. But if you are sick, you may not absorb enough food and your blood sugar may drop too low. If you are sick after eating, check your blood sugar and try to eat something to stop it getting too low.

If you are being sick, your insulin dose may need to increase or decrease. The type of insulin you use may need to change. When you are unwell, contact your diabetes team straight away for advice on how to manage your insulin.

If you are worried about coping with sickness, talk to your cancer doctor and your diabetes team. They can give you more advice.

Diarrhoea

Diarrhoea means that you need to go to the toilet more often than is normal for you. The stools (poo) you pass are also looser than normal. It can be caused by chemotherapy, radiotherapy, targeted therapy, immunotherapy and surgery. Sometimes other medicines, such as antibiotics, or an infection can cause diarrhoea. Diarrhoea may be worse if you already have bowel problems.

Diarrhoea can be a problem if you have diabetes, and can make your blood sugar level drop. This is because you are not absorbing food as usual. Your cancer doctor, specialist nurse or other members of your cancer team can tell you if your cancer treatment is likely to cause diarrhoea. They will tell you what to do if this happens and when to contact them for advice.

Diarrhoea caused by cancer treatment can be mild. But, for some people, it can be severe and may lead to dehydration. It is important to avoid dehydration. Your diabetes team may suggest you follow the sick day rules (pages 64 to 65). If you are severely dehydrated and have high blood sugar, you may need to go into hospital.

If you have diarrhoea or if it is getting worse, contact the hospital on the number they have given you and speak to a doctor or nurse. They can find out what is causing it and may give you anti-diarrhoea medicines.

Check it is safe to keep taking your usual medication you have been prescribed. You may need to stop taking some medication for a while if you are very dehydrated. Try to keep drinking fluid, and follow the advice from your cancer team.

You may find changing your diet does not help if your diarrhoea is caused by radiotherapy (pages 46 to 47) or chemotherapy (pages 42 to 45). It is important to take the anti-diarrhoea medicines you are given and follow the advice you are given. If the diarrhoea is caused by radiotherapy, your radiographer will advise you about how to manage it. You can also be referred to a dietitian for more advice.

If you have diarrhoea after surgery for bowel cancer (pages 48 to 51), tell your cancer doctor, specialist nurse or a dietitian. They can talk to you about what may help.

We have more information about diarrhoea on our website. Visit [macmillan.org.uk/bladder-bowel-problems](https://www.macmillan.org.uk/bladder-bowel-problems)



Eating problems

Cancer and cancer treatments can affect your appetite. This may include losing your appetite or having a bigger appetite than usual.

Loss of appetite

During cancer treatment, you may lose your appetite. This could be because you feel sick, you are too tired to eat, or foods taste different. This usually does not last long.

If you have a small appetite, healthy eating for diabetes may not be appropriate. You may need to have high-energy, high-protein food and drinks during this time.

While you are not eating your normal diet, you will need to check your blood sugar level more often than normal. If you cannot eat enough, they may drop too low. This can lead to hypoglycaemia (a hypo). A good way to prevent a hypo is to eat regularly. If you cannot eat solid food, you could sip carbohydrate-containing drinks, such as whole milk, milky tea or coffee, and fruit juice.

It is important to know the early signs of a hypo, so you can treat it quickly. Make sure your family and friends also know the symptoms, so they can help you. We have more information about the symptoms of a hypo and how to manage it (pages 20 to 23).

While you have a poor appetite, your dose of insulin or your diabetes medicine may need to be changed to help prevent hypos. Your diabetes team or healthcare team will give you advice on this.

If you are struggling to eat, you can be referred to a dietitian for support and advice to help with your eating. There are meal replacement drinks that are available on prescription. Ask your doctor or dietitian whether these are appropriate for you.

Tips to help improve your appetite

- Eat small amounts as often as possible. If your appetite is better at certain times of the day, try to plan your meals for then.
- If you change your mealtimes to help manage your blood sugar level, you may need to change when you take your diabetes medicines. Contact your healthcare team for advice about this.
- Keep snacks with you, such as bags of nuts, crisps or dried fruit. If these are hard to swallow, try creamy Greek yoghurt or fromage frais. If you have recently had surgery or radiotherapy for bowel cancer, you may need advice about the best foods for you. Talk about this with your specialist nurse or cancer doctor, or a dietitian.
- Try milk drinks made with whole milk, or savoury nourishing drinks. These can replace small meals and can be sipped slowly through the day. Your doctor or dietitian can prescribe special nutritional drinks that contain carbohydrates.
- Eat your meals slowly. Chew the food well and relax for a bit after each meal.
- Have drinks after meals rather than before if you feel full easily.

We have more information about eating problems and how to cope in our booklet **Eating problems and cancer** (page 96) and on our website at [macmillan.org.uk/eating-problems](https://www.macmillan.org.uk/eating-problems)

Bigger appetite than normal

Some medicines, such as steroids (pages 38 to 41), may make you want to eat much more than usual. It is important to try to eat healthy foods as much as possible. A balanced and healthy diet will help you manage your blood sugar level and avoid putting on too much weight.

Try to limit eating sugary foods such as biscuits, chocolate, cakes and ice cream. These are high in calories and can raise blood sugar. Try to avoid drinking sugary drinks such as full-fat fizzy drinks and squashes. Instead choose 'diet', 'zero' or 'no added sugar' drinks. Water is best.

We have more information to help you cope with eating problems in our booklet **Eating problems and cancer** (page 96) and on our website at [macmillan.org.uk/eating-problems](https://www.macmillan.org.uk/eating-problems)

Diabetes UK also has information and recipes to help you try to maintain a healthy weight (pages 102 to 103).

“I would go to the oncology clinic and have a discussion with the dietitian about how I balanced my diet.”

Richard, diagnosed with pancreatic cancer

Risk of infection

The immune system protects the body from harmful bacteria and other organisms. Some types of cancer and cancer treatment can weaken your immune system and increase your risk of infection:

- Chemotherapy, radiotherapy, targeted therapy, immunotherapy and some types of cancer can reduce the number of white blood cells your body produces. White blood cells fight infection.
- Surgery may make you more at risk of infection. The skin acts as a barrier, so any cut in the skin increases the risk of infection.

People with diabetes are more at risk of an infection or having a weaker immune system. This is usually if their blood sugar level is often too high.

Infections can raise your blood sugar to dangerously high levels. As part of the body's way of fighting illness and infection, more sugar is released into the blood stream. This can happen even if you are not eating food or eating less than usual.

People who do not have diabetes produce more insulin to cope with the extra sugar. But if you have diabetes, your body cannot do this (pages 6 to 7). The extra sugar will cause a high blood sugar level. This can make you feel more thirsty and pass more urine (pee), which can lead to dehydration.

Symptoms of an infection include:

- a high temperature
- suddenly feeling unwell, even with a normal temperature
- a painful, swollen or hot wound
- feeling shaky or shivering
- a sore throat
- a cough, especially if there is yellow or green phlegm
- diarrhoea
- needing to pass urine a lot, or pain when you pass urine.

If you develop any of these symptoms, tell your doctors straight away. They can give you antibiotics to fight the infection. They can also help you to manage your blood sugar level.

If you have an infection, you will need to check your blood sugar level more often. Talk to your diabetes team for advice on managing your blood sugar level.



Tips to help you avoid infection

- Wash your hands regularly with soap and hot water, especially after going to the toilet or before preparing a meal.
- Have a shower or bath every day, and do not share towels with other people.
- Avoid people with sore throats, viruses, colds, flu, diarrhoea or vomiting, or infections such as chickenpox. If you have been around someone who has an infection, ask your cancer doctor or specialist nurse for advice.
- Stay away from very crowded places as much as possible.
- Avoid using public swimming pools and hot tubs. If you are doing sports or social activities, try to go when it is quiet.
- Be careful if you have pets or work with animals. If you can, try not to handle any animal waste, such as litter trays or manure.

We have more information about avoiding infection on our website. Visit [macmillan.org.uk/avoidinginfection](https://www.macmillan.org.uk/avoidinginfection)



Slow wound healing

How long the wound takes to heal depends on the operation you have had. If you have only had a small area of tissue removed, your wound will usually heal quickly. If you have had a bigger operation, it may take a few weeks to heal properly.

Wound healing can be slower if you:

- are older
- are having cancer treatment, such as chemotherapy or radiotherapy
- smoke, vape or use nicotine replacements
- are not able to eat a varied diet or are not managing to eat enough.

If you have diabetes and your blood sugar level is high, your wound can take longer to heal. Wound healing may also be slower in people who have had diabetes for many years. Over time, high blood sugar can affect the nerves and lead to poor blood circulation and nerve damage. Wounds need a good blood supply to heal.

The longer a wound takes to heal, there is more risk it will become infected. It is important to keep the wound clean and dry. After an operation, the wound will be covered with a dressing for 1 to 2 days. The ward nurses will change the dressing before you go home. They will tell you how to look after the wound. They can make you an appointment with your practice nurse to check the wounds and remove stitches if needed. Or they can arrange for a district nurse to visit you at home.

Contact the hospital doctor if you develop any symptoms of a wound infection. These include:

- your wound becoming hot or painful
- your wound looking red or swollen
- having a high temperature
- your wound starting to bleed or leak any fluids.

Tips to help with wound healing

- Keep your blood sugar level well managed. Ask your diabetes team for support to do this.
- Get plenty of rest and sleep.
- Do not smoke. If you need support, you can ask your local stop smoking service – visit [macmillan.org.uk/stop-smoking](https://www.macmillan.org.uk/stop-smoking)

It is important to eat a well-balanced diet. This includes foods that contain lots of:

- protein – meats, fish, pulses, beans, eggs, nuts and dairy products such as milk, cheese and yoghurt
- vitamin A – cheese, eggs, oily fish, liver, dark-green leafy vegetables, and orange and yellow vegetables
- vitamin C – peppers, broccoli, spinach, tomatoes, potatoes and citrus fruits such as oranges
- zinc – meats, some shellfish, cheese, lentils, beans, nuts, seeds, wholegrain cereals and breads.

Our booklet **Healthy eating and cancer** has more information about eating a well-balanced diet (page 96).

Being less active

During cancer treatment, there may be times when you do not feel like being active. That is okay. You may feel very tired (fatigued) or not have much energy. You may also have side effects, such as sickness or pain, that stop you being active.

If you have diabetes, not being active can change your blood sugar level. This will depend on your situation. You may need to check your blood sugar level more often if you are not active. Your diabetes team can give you advice about managing your blood sugar while you are less active.

Being active can help with your diabetes by:

- helping the body use insulin more effectively
- increasing the amount of sugar used by the body
- improving how you manage your diabetes
- helping you manage your weight.

Being active can also help reduce stress and improve a low mood.

Tips to help you get more active

- Join an activity group.
- Walk or cycle to the shops.
- Keep a record of how active you have been.
- Set goals you can achieve.
- Do activities you enjoy.
- Tell your friends about being active. They may want to join you.

We have more information and tools to help you get more active in our booklet **Physical activity and cancer** (page 96).

Diabetes UK also has information about exercise and blood sugar level (pages 102 to 103).





Advanced cancer and diabetes

Managing the symptoms of advanced cancer 86

Managing the symptoms of advanced cancer

Some people have advanced cancer when they are first diagnosed. For others, the cancer may have spread or come back after treatment.

It is rare for advanced cancer to be cured. But people may live with it for a long time, sometimes for years. This may mean having different treatments when they are needed. It can also mean having ongoing treatment to control the cancer. During this time, many people carry on with their normal lives and keep doing things that are important to them.

Sometimes it may not be possible to control the cancer any longer. Or a person may not be well enough to have treatment. If this happens, doctors use treatment to control the symptoms of cancer. The person may start seeing a team of healthcare professionals that specialise in controlling symptoms (palliative treatment). They are called a palliative care team.

Managing your diabetes can be more difficult if you have advanced cancer. You may be given less-strict blood sugar level targets. This is because you may have symptoms that make it hard to manage your blood sugar level. These include:

- loss of appetite (pages 72 to 73)
- feeling sick (pages 66 to 69)
- extreme tiredness (fatigue)
- constipation
- diarrhoea (pages 70 to 71).

People with advanced cancer are often less active than normal. This means their bodies use up less sugar. Advanced cancer can also change the way the body uses food, which can affect blood sugar level.

Some medicines used to help control cancer symptoms can affect blood sugar level. These include steroids (pages 38 to 41) and some painkillers. They can also affect the way that food is absorbed in the body.

Managing your blood sugar level

When you are first diagnosed with advanced cancer, you may still be active and have a good appetite. At this time, your diabetes can usually be managed normally.

One of the main aims of managing diabetes is to prevent long-term complications. When you are having palliative treatment, this becomes less important. As you become more unwell, you do not have to be as strict with managing your blood sugar level. But having a very low or very high blood sugar level can cause upsetting symptoms. Your healthcare team will support you to keep your blood sugar level within a range to help avoid these symptoms.

You should always be involved as much as possible in any decisions about how your diabetes is managed. Your healthcare team will discuss with you and your family any changes to your diabetes management as your health changes. Your diabetes team, cancer team and palliative care team can offer you advice and support. They can arrange more help if needed.

If you take insulin, you can keep checking your blood sugar. Or a carer can help if you are not feeling well enough to do it yourself.

If you have type 1 diabetes, insulin should never be stopped. But your healthcare team may suggest changing your insulin regimen. They will discuss this with you and your family. If you manage your diabetes with tablets, the type of tablet may be changed.

Towards the end of life, it is normal to start to lose energy. You may need to rest a lot during the day and may sleep most of the time. You may only be taking sips of fluid and not eating very much. At this time, there should be no restriction on what you eat. You also will not need to check your blood sugar level as often.

If you have type 1 diabetes, you will need to continue having your insulin. But your healthcare team may change you to a simpler regimen. If you have type 2 diabetes, your insulin may be stopped. But this decision will depend on your blood sugar level, symptoms and cancer treatment. Your diabetes team will discuss this with you. If you have been taking diabetes tablets, your diabetes team may recommend stopping taking them. They will be able to help you with this.

We have more information about in our booklet **Coping with advanced cancer** (page 96). If you need more support, you can call our cancer support specialists for free on **0808 808 00 00**.



Coping with your emotions

Your feelings

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Your feelings

It is common to have many different feelings when you are told you have cancer. It can be very difficult if you are already coping with another condition, such as diabetes. There may be times when you struggle to manage your diabetes. This might be if you are feeling ill because of cancer treatment.

If you feel unsure or worried about managing your diabetes, don't be afraid to ask questions or to ask for help. You should speak to your cancer team, as well as your diabetes team or GP.

Being diagnosed with cancer is a life-changing experience for most people. It can have a huge effect on your emotions, as well as on the practical parts of your life. You may feel shocked, scared, depressed or angry. You may have these feelings when you are diagnosed, during treatment, or when you are recovering and adjusting to life after treatment.

We have more information about emotions on our website and in our booklet **How are you feeling? The emotional effects of cancer**.

You can order our booklets and leaflets for free.

Visit [be.macmillan.org.uk](https://www.be.macmillan.org.uk) or call us on **0808 808 00 00**.



Your healthcare team will usually give you support. But you may feel you need more help. Talk to your cancer doctor, GP or specialist nurse. They can refer you to a specialist doctor, psychologist or counsellor who can help. They may also prescribe medicine to help with anxiety or an anti-depressant drug if you need it.

You can also call the Macmillan Support Line on **0808 808 00 00** and talk to one of our cancer support specialists.

Talking to family, friends or other people affected by cancer may help. For more information or for help finding local support groups, visit **[macmillan.org.uk/supportgroups](https://www.macmillan.org.uk/supportgroups)** Or talk to other people on our Online Community at **[macmillan.org.uk/community](https://www.macmillan.org.uk/community)**

There is more information on pages 98 to 101 about other ways we can help you.

You can also call the Diabetes UK helpline and talk to trained counsellors (page 102). Or you can join a Diabetes UK local group (page 103).



Further information

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About our information

We provide expert, up-to-date information about cancer. And all our information is free for everyone.

Order what you need

You may want to order more booklets or leaflets like this one.

Visit **be.macmillan.org.uk** or call us on **0808 808 00 00**.

We have booklets about different cancer types, treatments and side effects. We also have information about work, financial issues, diet, life after cancer treatment and information for carers, family and friends.

Online information

All our information is also available online at **macmillan.org.uk/information-and-support** You can also find videos featuring stories from people affected by cancer, and information from health and social care professionals.

Other formats

We also provide information in different languages and formats, including:

- audiobooks
- Braille
- British Sign Language
- easy read booklets
- interactive PDFs
- large print
- translations.

Find out more at **macmillan.org.uk/otherformats**

If you would like us to produce information in a different format for you, email us at **cancerinformationteam@macmillan.org.uk** or call us on **0808 808 00 00**.

The language we use

We want everyone affected by cancer to feel our information is written for them.

We want our information to be as clear as possible. To do this, we try to:

- use plain English
- explain medical words
- use short sentences
- use illustrations to explain text
- structure the information clearly
- make sure important points are clear.

We use gender-inclusive language and talk to our readers as 'you' so that everyone feels included. Where clinically necessary we use the terms 'men' and 'women' or 'male' and 'female'. For example, we do so when talking about parts of the body or mentioning statistics or research about who is affected.

You can read more about how we produce our information at **[macmillan.org.uk/ourinfo](https://www.macmillan.org.uk/ourinfo)**

Other ways we can help you

At Macmillan, we know how a cancer diagnosis can affect everything, and we are here to support you.

Talk to us

If you or someone you know is affected by cancer, talking about how you feel and sharing your concerns can really help.

Macmillan Support Line

Our free, confidential phone line is open 7 days a week, 8am to 8pm. We can:

- help with any medical questions you have about cancer or your treatment
- help you access benefits and give you financial guidance
- be there to listen if you need someone to talk to
- tell you about services that can help you in your area.

Our trained cancer information advisers can listen and signpost you to further support. Call us on **0808 808 00 00**. We are open 7 days a week, 8am to 8pm.

You can also email us, or use the Macmillan Chat Service via our website. You can use the chat service to ask our advisers about anything that is worrying you. Tell them what you would like to talk about so they can direct your chat to the right person. Click on the 'Chat to us' button, which appears on pages across the website. Or go to **macmillan.org.uk/talktous**

If you would like to talk to someone in a language other than English, we also offer an interpreter service for our Macmillan Support Line. Call **0808 808 00 00** and say, in English, the language you want to use. Or send us a web chat message saying you would like an interpreter. Let us know the language you need and we'll arrange for an interpreter to contact you.

Macmillan Information and Support Centres

Our Information and Support Centres are based in hospitals, libraries and mobile centres. Visit one to get the information you need and speak with someone face to face. If you would like a private chat, most centres have a room where you can speak with someone confidentially.

Find your nearest centre at [macmillan.org.uk/informationcentres](https://www.macmillan.org.uk/informationcentres) or call us on **0808 808 00 00**.

Help with money worries

Having cancer can bring extra costs such as hospital parking, travel fares and higher heating bills. If you have been affected in this way, we can help. Please note the opening times may vary by service.

Financial guidance

Our financial team can give you guidance on mortgages, pensions, insurance, borrowing and savings.

Help accessing benefits

Our welfare rights advisers can help you find out what benefits you might be entitled to, and help you complete forms and apply for benefits. They can also tell you more about other financial help that may be available to you. We can also tell you about benefits advisers in your area. Visit [macmillan.org.uk/financialsupport](https://www.macmillan.org.uk/financialsupport) to find out more about how we can help you with your finances.

Help with energy costs

Our energy advisers can help if you have difficulty paying your energy bills (gas, electricity and water). They can help you get access to schemes and charity grants to help with bills, advise you on boiler schemes and help you deal with water companies.

Macmillan Grants

Macmillan Grants are small, one-off payments to help people with the extra costs that cancer can cause. They are for people who have a low level of income and savings.

If you need things like extra clothing or help paying heating bills, you may be able to get a Macmillan Grant. A grant from Macmillan does not affect the benefits you are entitled to. It is an extra bit of help, not a replacement for other support.

To find out more, or to apply, call on **0808 808 00 00** or visit **macmillan.org.uk/grants**

Help with work and cancer

Whether you are an employee, a carer, an employer or are self-employed, we can provide support and information to help you manage cancer at work. Visit **macmillan.org.uk/work**

Work support

Our dedicated team of work support advisers can help you understand your rights at work. Call us on **0808 808 00 00** to speak to a work support adviser.

Talk to others

No one knows more about the impact cancer can have on your life than those who have been through it themselves. That is why we help bring people together in their communities and online.

Support groups

Whether you are someone living with cancer or a carer, family member or friend, we can help you find support in your local area, so you can speak face to face with people who understand. Find out about support groups in your area by calling us or by visiting **[macmillan.org.uk/selfhelpandsupport](https://www.macmillan.org.uk/selfhelpandsupport)**

Online Community

Thousands of people use our Online Community to make friends, blog about their experiences and join groups to meet other people going through the same things. You can access it any time of day or night. Share your experiences, ask questions, or just read through people's posts at **[macmillan.org.uk/community](https://www.macmillan.org.uk/community)**

You can also use our Ask an Expert service on the Online Community. You can ask a financial guide, cancer information nurse, work support advisor or an information and support advisor any questions you have.

Macmillan healthcare professionals

Our nurses, doctors and other health and social care professionals give expert care and support to individuals and their families. Call us or ask your GP, consultant, district nurse or hospital ward sister if there are any Macmillan professionals near you.

How Diabetes UK can help you

We are the UK's leading diabetes charity. Our vision is of a world where diabetes can do no harm. We provide information, advice and peer support, so people with diabetes can manage their condition effectively.

Diabetes UK Helpline

The Diabetes UK Helpline is a dedicated helpline for anyone with diabetes, and their family and friends. The confidential helpline is staffed by trained counsellors, who can help you with any questions you have about your diabetes.

They can give you information about the condition, take time to talk things through, and help you with any emotional, social, psychological or practical worries you may have.

If you live in England, Wales or Northern Ireland, you can call **0345 123 2399**, Monday to Friday, 9am to 6pm.

If you live in Scotland, you can call **0141 212 8710**, Monday to Friday, 9am to 6pm.

Or you can email **helpline@diabetes.org.uk** or **helpline.scotland@diabetes.org.uk**

Information and support

We have lots of free information booklets and leaflets to help you manage your diabetes. You can order these from **shop.diabetes.org.uk** or by calling **0800 585 088**.

We also have an advocacy service that gives people with diabetes information to help them understand their legal rights and entitlements.

Support groups

A good way of finding support is to join a Diabetes UK local group. These groups offer people living with diabetes a chance to meet and share experiences with others. They are all run by volunteers and usually meet once a month, often with a speaker on a topic like diet or exercise.

To find your local group, visit **diabetes.org.uk/how_we_help/local_support_groups**

Other useful organisations

There are lots of other organisations that can give you information or support. Details correct at time of printing.

General cancer support organisations

Black Women Rising

www.blackwomenrisinguk.org

Aims to educate, inspire and bring opportunities for women from the BAME community. Shares stories and supports Black cancer patients and survivors through treatment and remission.

Cancer Black Care

Tel **0208 961 4151**

www.cancerblackcare.org.uk

Offers UK-wide information and support for people from Black and minority ethnic communities who have cancer. Also supports their friends, carers and families.

Cancer Focus Northern Ireland

Helpline **0800 783 3339**

www.cancerfocusni.org

Offers a variety of services to people affected by cancer in Northern Ireland.

Cancer Research UK

Helpline **0808 800 4040**

www.cancerresearchuk.org

A UK-wide organisation that has patient information on all types of cancer. Also has a clinical trials database.

Cancer Support Scotland

Tel **0800 652 4531**

www.cancersupportscotland.org

Runs cancer support groups throughout Scotland. Also offers free complementary therapies and counselling to anyone affected by cancer.

Macmillan Cancer Voices

www.macmillan.org.uk/cancervoices

A UK-wide network that enables people who have or have had cancer, and those close to them such as family and carers, to speak out about their experience of cancer.

Maggie's

Tel **0300 123 1801**

www.maggies.org

Has a network of centres in many locations throughout the UK. Provides free information about cancer and financial benefits. Also offers emotional and social support to people with cancer, their family, and friends.

Penny Brohn UK

Helpline **0303 3000 118**

www.pennybrohn.org.uk

Offers physical, emotional and spiritual support across the UK, using complementary therapies and self-help techniques.

Tenovus

Helpline **0808 808 1010**

www.tenovuscancercare.org.uk

Aims to help everyone in the UK get equal access to cancer treatment and support. Funds research and provides support such as mobile cancer support units, a free helpline, benefits advice and an online 'Ask the nurse' service.

Counselling

British Association for Counselling and Psychotherapy (BACP)

Tel **0145 588 3300**

www.bacp.co.uk

Promotes awareness of counselling and signposts people to appropriate services across the UK. You can also search for a qualified counsellor on the 'How to find a therapist' page.

UK Council for Psychotherapy (UKCP)

Tel **0207 014 9955**

www.psychotherapy.org.uk

Holds the national register of psychotherapists and psychotherapeutic counsellors, listing practitioners who meet exacting standards and training requirements.

Emotional and mental health support

Mind

Helpline **0300 123 3393**

www.mind.org.uk

Provides information, advice and support to anyone with a mental health problem through its helpline and website.

Samaritans

Helpline **116 123**

Email **jo@samaritans.org**

www.samaritans.org

Provides confidential and non-judgemental emotional support, 24 hours a day, 365 days a year, for people experiencing feelings of distress or despair.

Equipment and advice on living with a disability

British Red Cross

Tel **0344 871 11 11**

www.redcross.org.uk

Offers a range of health and social care services across the UK, such as care in the home, a medical equipment loan service and a transport service.

Disability Rights UK

Tel **0330 995 0400** (not an advice line)

www.disabilityrightsuk.org

Provides information on social security benefits and disability rights in the UK. Has a number of helplines for specific support, including information on going back to work, direct payments, human rights issues, and advice for disabled students.

Living Made Easy

Helpline **0300 123 3084**

www.livingmadeeasy.org.uk

Provides free, impartial advice about all types of disability equipment and mobility products.

Motability Scheme

Tel **0300 456 4566**

www.motability.co.uk

The scheme enables disabled people to exchange mobility allowances they have as part of benefits (including the enhanced rate mobility component of Personal Independence Payment) to lease a new car, scooter or powered wheelchair.

Scope

Helpline **0808 800 3333**

Textphone Use Type Talk by dialling **18001** from a textphone followed by **0808 800 3333**.

www.scope.org.uk

Offers advice and information on living with disability. Also supports an independent, UK-wide network of local Disability Information and Advice Line services (DIALs) run by and for disabled people.

Support for young people

Teenage Cancer Trust

Tel **0207 612 0370**

www.teenagecancertrust.org

A UK-wide charity devoted to improving the lives of teenagers and young adults with cancer. Runs a support network for young people with cancer, their friends and families.

Youth Access

Tel **0208 772 9900**

www.youthaccess.org.uk

A UK-wide organisation providing counselling and information for young people. Find your local service by visiting **youthaccess.org.uk/find-your-local-service**

Young Lives vs Cancer

Tel **0300 330 0803**

www.younglivesvscancer.org.uk

Provides clinical, practical, financial and emotional support to children with cancer and their families in the UK.

Support for older people

Age UK

Helpline **0800 678 1602**

www.ageuk.org.uk

Provides information and advice for older people across the UK via the website and advice line. Also publishes impartial and informative fact sheets and advice guides.

LGBT-specific support

LGBT Foundation

Tel **0345 330 3030**

www.lgbt.foundation

Provides a range of services to the LGBT community, including a helpline, email advice and counselling. The website has information on various topics including sexual health, relationships, mental health, community groups and events.

OUTpatients

outpatients.org.uk

A safe space for anybody who identifies as part of the queer spectrum and has had an experience with any kind of cancer at any stage. Also produces resources about LGBT cancer experiences. OUTpatients runs a peer support group with Maggie's Barts.

Support for carers

Carers Trust

Tel **0300 772 9600**

www.carers.org

Provides support, information, advice and services for people caring at home for a family member or friend. You can find details for UK offices and search for local support on the website.

Carers UK

Helpline **0808 808 7777**

www.carersuk.org

Offers information and support to carers across the UK. Has an online forum and can put people in contact with local support groups for carers.

Support with sight loss

Royal National Institute of Blind People (RNIB)

Helpline **0303 123 9999**

www.rnib.org.uk

Offers support and advice to blind and partially sighted people in the UK.

Support with hearing loss

RNID

Helpline **0808 808 0123**

Textphone **0808 808 9000**

SMS **0780 000 0360**

www.rnid.org.uk

Offers support and practical advice to people in the UK with hearing loss and tinnitus.

Advanced cancer and end of life care

Hospice UK

Tel **0207 520 8200**

www.hospiceuk.org

Provides information about living with advanced illness. Also provides free booklets and a directory of hospice services in the UK.

Marie Curie

Helpline **0800 090 2309**

www.mariecurie.org.uk

Marie Curie nurses provide free end of life care across the UK. They care for people in their own homes or in Marie Curie hospices, 24 hours a day, 365 days a year.

Cancer registries

The cancer registry is a national database that collects information on cancer diagnoses and treatment. This information helps the NHS and other organisations plan and improve health and care services.

There is a cancer registry in each country in the UK. They are run by the following organisations:

England – National Disease Registration Service (NDRS)

www.digital.nhs.uk/ndrs/patients

Scotland – Public Health Scotland (PHS)

www.publichealthscotland.scot/our-areas-of-work/conditions-and-diseases/cancer/scottish-cancer-registry-and-intelligence-service-scris/overview

Wales – Welsh Cancer Intelligence and Surveillance Unit (WCISU)

Tel **0292 010 4278**

www.phw.nhs.wales/wcisu

Northern Ireland – Northern Ireland Cancer Registry (NICR)

Tel **0289 097 6028**

www.qub.ac.uk/research-centres/nicr/AboutUs/Registry



Disclaimer

We make every effort to ensure that the information we provide is accurate and up to date but it should not be relied upon as a substitute for specialist professional advice tailored to your situation. So far as is permitted by law, Macmillan does not accept liability in relation to the use of any information contained in this publication, or third-party information or websites included or referred to in it. Some photos are of models.

Thanks

This booklet has been written, revised and edited by Macmillan Cancer Support's Cancer Information Development team. It has been approved by members of Macmillan's Centre of Clinical Expertise.

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Thanks also to the people affected by cancer who reviewed this edition, and those who shared their stories. We welcome feedback on our information. If you have any, please contact **cancerinformationteam@macmillan.org.uk**

Sources

Below is a sample of the sources used in our diabetes and cancer treatment information. If you would like more information about the sources we use, please contact us at **cancerinformationteam@macmillan.org.uk**

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Can you do something to help?

We hope this booklet has been useful to you. It is just one of our many publications that are available free to anyone affected by cancer. They are produced by our cancer information specialists who, along with our nurses, benefits advisers, campaigners and volunteers, are part of the Macmillan team. When people are facing the toughest fight of their lives, we are here to support them every step of the way.

We want to make sure no one has to go through cancer alone, so we need more people to help us. When the time is right for you, here are some ways in which you can become a part of our team.

5 ways you can help someone with cancer

1. Share your cancer experience

Support people living with cancer by telling your story, online, in the media or face to face.

2. Campaign for change

We need your help to make sure everyone gets the right support. Take an action, big or small, for better cancer care.

3. Help someone in your community

A lift to an appointment. Help with the shopping. Or just a cup of tea and a chat. Could you lend a hand?

4. Raise money

Whatever you like doing you can raise money to help. Take part in one of our events or create your own.

5. Give money

Big or small, every penny helps. To make a one-off donation see over.

Please fill in your personal details

Mr/Mrs/Miss/Other

Name

Surname

Address

Postcode

Phone

Email

Please accept my gift of £
(Please delete as appropriate)

I enclose a cheque / postal order /
Charity Voucher made payable to
Macmillan Cancer Support

OR debit my:

Visa / MasterCard / CAF Charity
Card / Switch / Maestro

Card number

Valid from

Expiry date

Issue no

Security number

Signature

Date / /

Do not let the taxman keep your money

Do you pay tax? If so, your gift will be worth 25% more to us – at no extra cost to you. All you have to do is tick the box below, and the tax office will give 25p for every pound you give.

I am a UK tax payer and I would like Macmillan Cancer Support to treat all donations I make or have made to Macmillan Cancer Support in the last 4 years as Gift Aid donations, until I notify you otherwise.

I understand that if I pay less Income Tax and/or Capital Gains Tax than the amount of Gift Aid claimed on all my donations in that tax year it is my responsibility to pay any difference. I understand Macmillan Cancer Support will reclaim 25p of tax on every £1 that I give.

Macmillan Cancer Support and our trading companies would like to hold your details in order to contact you about our fundraising, campaigning and services for people affected by cancer. If you would prefer us not to use your details in this way please tick this box.

In order to carry out our work we may need to pass your details to agents or partners who act on our behalf.

If you would rather donate online go to macmillan.org.uk/donate



Please cut out this form and return it in an envelope (no stamp required) to: Supporter Donations, Macmillan Cancer Support, FREEPOST LON15851, 89 Albert Embankment, London SE1 7UQ

This booklet is for anyone who has both cancer and diabetes. You may also want to read it if you have been told your cancer treatment may increase your risk of developing diabetes.

The booklet explains how some tests and cancer treatments can affect your diabetes and make it more difficult to control your blood sugar. It also has some tips to help you cope with the side effects of cancer treatment if you have diabetes.

At Macmillan, we give people with cancer everything we've got. If you are diagnosed, your worries are our worries. We will help you live life as fully as you can.

For information, support or just someone to talk to, call **0808 808 00 00** or visit **macmillan.org.uk**

Would you prefer to speak to us in another language? Interpreters are available. Please tell us in English the language you would like to use. Are you deaf or hard of hearing? Call us using NGT (Text Relay) on **18001 0808 808 00 00**, or use the NGT Lite app.

Need information in different languages or formats? We produce information in audio, interactive PDFs, easy read, Braille, large print and translations.

To order these, visit **macmillan.org.uk/otherformats** or call our support line.

The logo consists of a blue rounded rectangle containing the text 'Trusted Information Creator' in black. To the right of the text is a green checkmark with a yellow shadow.

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