

Sepsis and cancer

Cancer and some cancer treatments can increase your risk of sepsis. This leaflet explains:

- what sepsis is
- when you need to contact your hospital team
- what you can do to protect yourself.

Any words that are underlined are explained in the word list at the end. The word list also includes how to say the words in English.

If you have any questions about this information, ask your doctor or nurse at the hospital where you are having treatment.

You can also call Macmillan Cancer Support on freephone **0808 808 00 00**, 7 days a week, 8am to 8pm. We have interpreters, so you can speak to us in your own language. When you call us, please tell us in English which language you need.

There is more cancer information in other languages at [macmillan.org.uk/translations](https://www.macmillan.org.uk/translations)

This information is about:

- What is sepsis?
- Why might I get sepsis?
- When might sepsis happen?
- What is my risk of getting sepsis?
- Can I prevent sepsis?
- How can I help myself?
- Looking after yourself before cancer treatment
- Looking after yourself during cancer treatment
- Symptoms of an infection that may lead to sepsis
- Later symptoms of sepsis – call 999
- What will happen when I call my hospital team?
- Getting the right care and support for you
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What is sepsis?

Sepsis is sometimes called blood poisoning. It happens when your body reacts to an infection and attacks its own organs and tissues..

Sepsis needs to be treated in hospital quickly. People can die from sepsis if it is not treated early.

When sepsis is treated quickly, most people make a full recovery

Why might I get sepsis?

Cancer and some cancer treatments can make your body unable to fight infections.

Our bodies are made up of tiny building blocks called cells. Our blood is made of cells, including red blood cells and white blood cells.

A type of white blood cell helps our bodies to fight infection. These cells are called neutrophils. Some cancer treatments reduce the number of these white blood cells in our bodies. This is most common if you have chemotherapy, but it can happen with other cancer treatments too.

If you have a low number of these neutrophils, a minor infection can become very serious. It could cause death within a few hours.

When might sepsis happen?

An infection or sepsis can happen at any time. Your risk is usually highest when the number of neutrophils in your blood is low The exact time can vary, so ask your hospital team when you are most at risk.

What is my risk of getting sepsis?

Your risk of infection and sepsis depends on the type of cancer drugs you are having. It also depends on:

- the type of cancer you have
- the stage of the cancer
- your age
- your general health.

Can I prevent sepsis?

You cannot stop the number of white blood cells from getting lower. This means you cannot prevent sepsis.

The most important thing you can do is call your hospital team's 24-hour helpline straight away if you are worried.

This reduces your risk of developing a serious problem from an infection and can save your life.

How can I help myself?

You should keep your hospital team's 24-hour helpline number with you at all times. Save the number in your mobile phone. You can also ask family and friends to keep a note of the number. Your hospital team will be either a cancer team or a haematology team, depending on the type of cancer you have.

Do not delay – always call the hospital sooner rather than later. Sepsis is easy to treat if the treatment starts early.

These are also other ways you can help yourself:

- Tell your family, friends and work colleagues about your risk of sepsis.
- Plan how you would get to hospital quickly, for example who would look after your children or help you to get to hospital.
- Keep a record of the treatment you are having and when you last had it.
- Check for early symptoms of an infection. We describe these in this information.
- Check for the symptoms of sepsis. We describe these in this information.
- Call your cancer team urgently if you have any symptoms of infection.

It can be difficult to know if the symptoms you have are an infection or a treatment side effect. Do not delay contacting your hospital team. Neither you or your doctor can tell which infections might lead to sepsis. All infections people get during cancer treatment are treated urgently.

Infections do not get better on their own. Early infections can be treated easily with antibiotics. But delaying treatment for an infection can be dangerous.

Looking after yourself before cancer treatment

You can look after yourself before treatment by doing the following:

- Talk to your doctor or nurse about getting the flu (influenza) vaccine and covid vaccine. Adults you live with should also get these vaccines.
- Buy a thermometer, so you can check your temperature at home.
- Have a dental check before you start cancer treatment.

Looking after yourself during cancer treatment

Do not be afraid to live your life as normal. You do not need to avoid family and friends, unless they are unwell. Infections during chemotherapy are usually caused by bacteria that are naturally present in your own body.

You can help yourself during treatment by doing the following:

- Avoid people who are unwell, for example people with coronavirus, chicken pox, shingles, diarrhoea or a fever.
- Call your hospital team's helpline if you have been exposed to people with an infection.
- Follow any advice you are given about your diet. Not all patients need to make changes to their diet. If you need to change your diet, you will be told about this at the start of your treatment.
- Wash your hands before and after you eat and wash your hands after using the toilet.
- Wash your hands straight away after touching or removing animal waste.
- Use clean gloves for gardening and any other activities where you might cut yourself.
- Clean any cuts or grazes straight away and cover them with a plaster.
- Clean your teeth at least twice a day.
- Cook food at the correct temperature and store food at the correct temperature.

Symptoms of an infection that may lead to sepsis

Contact your hospital team urgently if you have any of the following symptoms of infection:

- You feel less well than normal.
- Your temperature goes over 37.5°C (99.5°F).
- Your temperature goes below 36°C (96.8°F).
- You feel shivery, freezing cold and unable to get warm, like when you have flu (influenza).
- You have diarrhoea. This means passing more stools (poo) than is usual for you or having watery or loose stools. If you have a stoma, it will be more active than usual.

There are some types of infection that have other symptoms. You should contact your hospital team urgently if you have any of these symptoms:

Symptoms of a urine infection

- pain or discomfort when you pee (pass urine)
- peeing more often than usual
- feeling that your bladder is not empty after peeing
- being unable to wait to empty your bladder
- leaking urine (incontinence)
- pain low down in your tummy area (abdomen)
- urine that is cloudy or foul smelling, or that contains blood.

Symptoms of a chest infection

- feeling short of breath
- having a sore chest
- coughing up green phlegm.

Symptoms of a skin infection.

- redness, heat, swelling or pain (especially around a PICC line, central line, cut or wound).

Symptoms of a tooth infection

- throbbing pain in your tooth or gum that may start suddenly and slowly gets worse
- pain that spreads to your ear, jaw and neck on the same side as the painful tooth or gum
- redness or swelling in your face.

Later symptoms of sepsis – call 999

If you have the later symptoms of sepsis, you need medical help straightaway. You need medical help to save your life and prevent serious damage to your body.

If you have any of these symptoms, call 999:

- slurred speech or confusion
- extreme shivering or muscle pain
- passing no urine in a day
- severe shortness of breath
- skin that is mottled or discoloured
- feeling generally very unwell – it may be the worst you have ever felt.

What will happen when I call my hospital team?

Telephone assessment

Your hospital team will ask about your symptoms and your temperature. They might ask you to go to hospital urgently and you might have to stay in. It is important to go to the hospital as soon as possible, so you can be seen and given treatment if needed.

Hospital assessment

The hospital team will treat you as an emergency. The hospital team are likely to:

- examine you
- take some blood, including a sample to find out the number of white blood cells in your blood
- arrange other tests, depending on the signs and symptoms you have
- decide whether you have too low a number of neutrophils and whether you have an infection or signs of sepsis.
- give you antibiotics by injection or through a drip into your bloodstream

(intravenously) within 1 hour of your arrival

Treatment options

Most people with sepsis will stay in hospital for antibiotic treatment into their bloodstream.

Your hospital team will talk to you about what antibiotic treatment you need and for how long. They will also talk to you about how long you might need to stay in hospital for.

If you are unlikely to have any problems from your infection, the hospital team might give you antibiotic tablets to take at home instead. They will tell you how important it is to go back to hospital quickly if you have any problems.

Getting the right care and support for you

If you have cancer and do not speak English, you may be worried that this will affect your cancer treatment and care. But your healthcare team should offer you care, support and information that meets your needs.

We know that sometimes people may face extra challenges in getting the right support. For example, if you work or have a family it can be hard to find time to go to hospital appointments. You might also have worries about money and transport costs. All of this can be stressful and hard to cope with.

But help is available. Our free support line **0808 808 00 00** can offer advice, in your language, about your situation. You can speak to nurses, financial guides, welfare rights advisers and work support advisers.

We also offer Macmillan Grants to people with cancer. These are one-off payments that can be used for things like hospital parking, travel costs, childcare or heating bills.

How Macmillan can help you

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

Macmillan Support Line

We have interpreters, so you can speak to us in your language. Just tell us, in English, the language you want to use. We can help with medical questions, give you information about financial support, or be there to listen if you need someone to talk to. The free, confidential phone line is open 7 days a week, 8am to 8pm. Call us on **0808 808 00 00**.

Web chat

You can send us a web chat message saying you would like an interpreter. Tell us, in English, the language you need, and we will arrange for someone to contact you. Click on the 'Chat to us' button, which appears on pages across the website. Or go

to macmillan.org.uk/talktous

Macmillan website

Our website has lots of information in English about cancer. There is also more information in other languages at macmillan.org.uk/translations

We can also arrange translations just for you. Email us at cancerinformationteam@macmillan.org.uk to tell us what you need.

Information 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. Find your nearest centre at macmillan.org.uk/informationcentres or call us on **0808 808 00 00**.

Local support groups

At a support group, you can talk to other people affected by cancer. Find out about support groups in your area at macmillan.org.uk/supportgroups or call us on **0808 808 00 00**.

Macmillan Online Community

You can also talk to other people affected by cancer online at macmillan.org.uk/community You can access it at any time of day or night. You can share your experiences, ask questions, or just read through people's posts.

Word list

Word	In English	How to say in English	Meaning
	Antibiotics		Medicine that treats an <u>infection</u> .
	Bladder		The organ in your body that stores urine until you go to the toilet.
	Cells		The tiny building blocks that make up the organs and tissues of our bodies.
	Central line		A thin tube that goes into a vein in your chest. It is used to give <u>chemotherapy</u> . One end stays outside the body.
	Chemotherapy		A cancer treatment that uses drugs to kill cancer cells.
	Chicken pox		An <u>infection</u> that causes a fever, skin rash and itchy

			skin. People usually get this when they are a child.
	Covid vaccine		A vaccine that helps protect you from covid (coronavirus).
	Diarrhoea		Having 4 or more loose, watery bowel movements in 24 hours.
	Fever		When your body temperature gets hotter than usual to fight an <u>infection</u> . This can also make you sweat and feel weak and dizzy.
	Flu (influenza)		An infection of the lungs and airways (the passages we breathe through in our bodies). This can also cause <u>fever</u> and aches in your body.
	Flu vaccine		A <u>vaccine</u> that protects you from getting the <u>flu</u> (<u>influenza</u>).
	Hospital team		The team of doctors, nurses and other professionals who will look after you in hospital.
	Infection		When bacteria gets into your body and causes an illness.
	Neutrophils		A type of white blood cell that fights infection.
	PICC line		A thin tube that goes into a vein in your arm. It is used to give <u>chemotherapy</u> . One end stays outside the body.
	Red blood cells		<u>Cells</u> in our blood that carry oxygen around the body.
	Side effects		Unwanted effects of cancer treatment, for example hair loss, feeling sick or tiredness.
	Vaccine		A treatment that aims to give your body protection (immunity) from a particular

			<u>infection</u> . It is often given by injection.
	White blood cells		<u>Cells</u> in our blood that fight <u>infection</u> .

More information in your language

We have information in your language about these topics:

<p>Types of cancer</p> <ul style="list-style-type: none"> • Breast cancer • Large bowel cancer • Lung cancer • Prostate cancer <p>Treatments</p> <ul style="list-style-type: none"> • Chemotherapy • Radiotherapy • Surgery 	<p>Living with cancer</p> <ul style="list-style-type: none"> • Cancer and coronavirus • Claiming benefits when you have cancer • Eating problems and cancer • End of life • Healthy eating • Help with costs when you have cancer • If you're diagnosed with cancer – A quick guide • Sepsis and cancer • Side effects of cancer treatment •
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To see this information, go to [macmillan.org.uk/translations](https://www.macmillan.org.uk/translations)

References and thanks

This information has been written and edited by Macmillan Cancer Support's Cancer Information Development team. It has been translated by a translation company.

The information included is based on the Macmillan booklet **Cancer treatments and sepsis**. We can send you a copy, but the full booklet is only available in English.

The information in this booklet has been reviewed by relevant experts and approved by our Chief Medical Editor, Professor Tim Iveson, Consultant Medical Oncologist and Macmillan Chief Medical Editor.

Thanks also to the people affected by cancer who reviewed this information.

All our information is based on the best evidence available. For more information about the sources we use, please contact us at cancerinformationteam@macmillan.org.uk

We make every effort to ensure that the information we provide is accurate but it should not be relied upon to reflect the current state of medical research, which is constantly changing. If you are concerned about your health, you should consult your doctor. Macmillan cannot accept liability for any loss or damage resulting from any inaccuracy in this information or third-party information such as information on websites to which we link.

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