

Side effects of cancer treatment

This fact sheet is about some of the main side effects of cancer treatment.

We hope this fact sheet answers your questions. If you have any more questions, ask your doctor or nurse.

We have listed other helpful information from Macmillan on page 6. Most of this is only in English. If you'd like to talk about this information with our cancer support specialists, we have interpreters for non-English speakers.

You can call the Macmillan Support Line free on **0808 808 00 00**, Monday–Friday, 9am–8pm. If you have problems hearing you can use textphone 0808 808 0121, or Text Relay. Or you can visit **macmillan.org.uk**

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What are side effects?

Side effects are often caused by cancer treatments. They can be mild and last a short time. But sometimes they can affect you more.

The side effects you may have will depend on your treatment. You may only have a few of the side effects mentioned here. Your doctors or nurses will tell you about any side effects you may have from treatment.

Treatment for cancer

There are different types of cancer treatment. You may have one or more of these treatments:

- Surgery – this removes the tumour and cancer cells around the tumour.
- Chemotherapy – this uses anti-cancer drugs to destroy cancer cells.
- Radiotherapy – this uses high energy x-rays to treat cancer.
- Hormonal therapies – these influence the way certain hormones are made in the body, and the way they work.

- Targeted therapies – these may use the body’s immune system to destroy cancer cells.

Treatment affects each person differently. Here are some common side effects of cancer treatment and some ways you can deal with them.

Possible side effects

Risk of infection

Chemotherapy and some targeted therapies can reduce the number of white blood cells in your blood. This will make you more likely to get an infection. When your white blood cells are low, it’s called neutropenia. You are most likely to get an infection 7–14 days after treatment. This can vary depending upon the drug, or combination of drugs, used.

Contact the hospital straight away on the contact number you’ve been given if:

- your temperature goes over 37.5°C (99.5°F) or over 38°C (100.4°F), depending on the advice given by your chemotherapy team
- you suddenly feel unwell, even with a normal temperature
- you have symptoms of an infection – this can include feeling shaky, a sore throat, a cough, diarrhoea or needing to urinate a lot.

Your white blood cells usually increase slowly and return to normal before your next treatment. You will have a blood test before your next treatment. If your white blood cells are still low, your doctor may delay your treatment for a short time.

Radiotherapy often has a mild and temporary effect on the white blood cells.

Surgery can also make you more likely to get an infection, often at the wound site. This is because it causes a break in the skin. The skin is part of the body’s natural protection.

If your doctor thinks you have an infection you may need antibiotics. You may have antibiotics by mouth or as an injection through a short thin tube into a vein in your arm or hand (cannula).

Anaemia (low red blood cells)

Chemotherapy, targeted therapies, radiotherapy and sometimes surgery can reduce the number of red cells in your blood. These cells carry oxygen around the body. If they are low, you may be tired and breathless.

- Tell your doctor or nurse if you feel like this.
- If you are very anaemic, you may need a drip to give you extra red blood cells. This is called a blood transfusion.

Bruising and bleeding

Chemotherapy, targeted therapies and sometimes surgery can reduce the number of platelets in your blood. Platelets are cells that help the blood to clot.

- Tell your doctor if you have any bruising or bleeding that you can't explain. This includes nosebleeds, bleeding gums, blood spots or rashes on the skin.
- Some people may need a drip to give them extra platelets.

Hair loss

Some chemotherapy drugs can make the hair on your head fall out or thin. This usually starts after your first or second cycle of chemotherapy. Your eyelashes, eyebrows and other body hair may also fall out or thin. After chemotherapy your hair will start to grow again.

Radiotherapy causes hair loss only in the area of the body that was treated. The hair should grow back after your treatment. But this will depend on the dose of radiotherapy you've had.

Some hormonal therapies can also affect your hair.

It can be very upsetting to lose your hair. But your hair will usually grow back after treatment. Your nurse can give you advice about coping with hair loss.

Tiredness (fatigue)

Chemotherapy, radiotherapy, surgery, targeted therapies and hormonal therapies can all cause you to feel very tired. It's often worse towards the end of treatment and for some weeks or months after.

- Try to pace yourself and get as much rest as you need.
- Balance rest with some gentle exercise, such as short walks.
- If you feel sleepy, don't operate machinery or drive.

Sore mouth and ulcers

Chemotherapy, radiotherapy and some targeted treatments can cause a sore mouth. Or, you may get ulcers.

- Gently clean your teeth after meals with a soft toothbrush and drink plenty of fluids.
- Tell your nurse or doctor if you have mouth problems. They can prescribe mouthwashes and medicines to prevent or get rid of any mouth infections. If your mouth is very sore, they may prescribe pain killers.

Feeling sick (nausea) or being sick (vomiting)

Chemotherapy, radiotherapy, targeted therapies and hormonal therapies can all make you feel sick (nausea) or be sick (vomit).

- Your doctor will prescribe anti-sickness (anti-emetic) drugs to prevent or control sickness.
- If you still feel sick, tell your doctor or nurse. They can prescribe other drugs that should work better for you.

Loss of appetite

Chemotherapy, radiotherapy, targeted therapies and hormonal therapies can make you lose your appetite. You may not feel like eating. Or you may feel very sick or too tired to eat.

- Try to eat little and often.
- If you can't face food, try having a nourishing drink instead. For example, a fruit smoothie or milkshake.
- Add extra calories to your food with butter, cream or full-fat milk.
- Tell your doctor or nurses if you have lost your appetite. They can give advice or refer you to a dietitian. They may prescribe nutritional supplements for you.

Taste changes

Some chemotherapy and targeted therapies can cause taste changes. Food may have a metallic taste, a different texture or no flavour at all.

- Use seasonings, spices and marinades to give food more flavour.
- Eat cold foods. They may taste better than hot foods.
- Use plastic cutlery if you have a metallic taste in your mouth.

Constipation

Chemotherapy, radiotherapy, hormonal therapies and targeted therapies can cause constipation. Constipation can also be caused by:

- loss of appetite
- poorly controlled pain
- nausea
- lack of fibre (roughage) in your diet
- not drinking enough
- not moving around.

Medicines can also make you constipated. These include painkillers and some anti-sickness drugs used during chemotherapy.

- Everyone's normal bowel pattern is different. But tell your doctor or nurse if you've not had a bowel movement for three days (unless this is normal for you).
- Try to include plenty of fibre in your diet. This includes wholegrain breakfast cereals, wholemeal bread, brown rice and fresh fruit and vegetables with skins on.
- Aim to drink at least two litres (three and a half pints) of fluid a day.

- Gentle exercise will help keep your bowels moving.
- Sometimes you may need a laxative to relieve constipation.

Diarrhoea

Radiotherapy to the pelvis or chemotherapy and targeted therapies can cause diarrhoea. Some medicines such as antibiotics can also cause diarrhoea.

- Drink plenty of fluids to replace the water lost with diarrhoea. But avoid alcohol and coffee.
- Cut down how much fibre you eat. This could be from cereals, fruit and vegetables.
- Avoid milk and dairy products, as well as spicy and fatty foods.
- If the diarrhoea continues for more than two days, tell your doctor. They may do some tests and prescribe anti-diarrhoea medicines.

Skin changes

Chemotherapy, radiotherapy, targeted therapies and hormonal therapies can cause skin problems. Depending on your treatment and how you react to it, you may experience some of the following symptoms:

Dry or discoloured skin (caused by chemotherapy)

- Try using a moisturising cream. But if you're having radiotherapy as well as chemotherapy, check with your doctor or radiographer before using creams.
- Use an electric razor instead of wet shaving. This will reduce the risk of cuts.

Increased sensitivity to sunlight (caused by chemotherapy and radiotherapy)

- Protect yourself if you go out in the sun. You should use a sun cream with a sun protection factor (SPF) of at least 30.
- Wear a hat or scarf on your head, and wear loose clothes made of cotton or other natural fibres.

Red or sore skin (caused by radiotherapy)

- Only use perfume-free soaps and creams.
- Don't use any creams or dressings unless prescribed or recommended by your specialist or radiographer. They may suggest using aqueous cream, aloe vera or arnica.

Rashes or itching (caused by some targeted and hormonal therapies)

- Speak to your doctor or nurse, who can prescribe medicines or recommend creams to help.

Sore skin on the palms of your hands and the soles of your feet (caused by some chemotherapy drugs and targeted therapies)

- Tell your specialist as soon as this develops. They may need to adjust your treatment.

Hormonal changes

Some treatments for certain cancers can cause hormonal symptoms. For example, you may have surgery and radiotherapy to the pelvic area that may affect organs that produce hormones. Some chemotherapy and hormonal therapies may also cause hormonal symptoms.

Symptoms can include:

- hot flushes and sweats
- breast tenderness (in men)
- weight gain
- bone thinning
- lowered sex drive
- impotence (in men)
- menstrual changes (in women)
- vaginal dryness (in women).

If you are likely to have hormonal symptoms, your doctors will tell you before your treatment. Hormonal effects may be temporary or permanent.

- Wear layers of light clothing. You can put them on or take them off if you are having hot flushes and sweats.
- Use layers of bed linen. You can adjust them during the night to deal with hot flushes and sweats.
- Have lukewarm baths and showers instead of hot ones.
- Some complementary therapies can help reduce symptoms, but check with your doctor first before using any of these.
- For men, there are a number of medicines and devices that can help deal with impotence.
- For women, there may be medicines that can help manage menopausal symptoms.
- Try to be physically active, for example walking. It can help to keep your bones strong.

It is important to mention any side effect you have to your doctor or nurse. They can give advice.

Related Macmillan information

- Controlling nausea and vomiting
- Coping with fatigue
- Coping with hair loss
- Mouth care during chemotherapy

For copies of this related information call free on **0808 808 00 00**, or see it online at **macmillan.org.uk**

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- Dougherty & Lister (eds). *The Royal Marsden Hospital Manual of Clinical Nursing Procedures*. 7th edition. Wiley-Blackwell. 2010.
- Tobias & Hochhauser. *Cancer and its management*. Wiley and Blackwell. 2010.

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