Side effects of cancer treatment

About this booklet

This booklet is about the possible side effects of cancer treatment. It is for anyone who is having, or thinking about having, treatment for cancer.

The booklet explains some common side effects of cancer treatment. It also describes some ways to manage side effects. No one will have all these side effects, but some people may have more than one.

There may be some side effects not mentioned here. It is a good idea to read this booklet alongside our information about the type of cancer you have. We also have information about different cancer treatments and the side effects they may cause.

Your nurse or doctor will discuss the treatment you might have and its possible side effects in more detail. We cannot give advice about the best treatment for you. You should talk to your doctor, who knows your medical history.

We hope this booklet helps you deal with some of the questions or feelings you may have. If you find this booklet helpful, you may want to share it with family or friends.

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 78 to 81, there are details of other organisations that can help.

Quotes

In this booklet, we have included quotes from people who have been affected by 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**

For more information

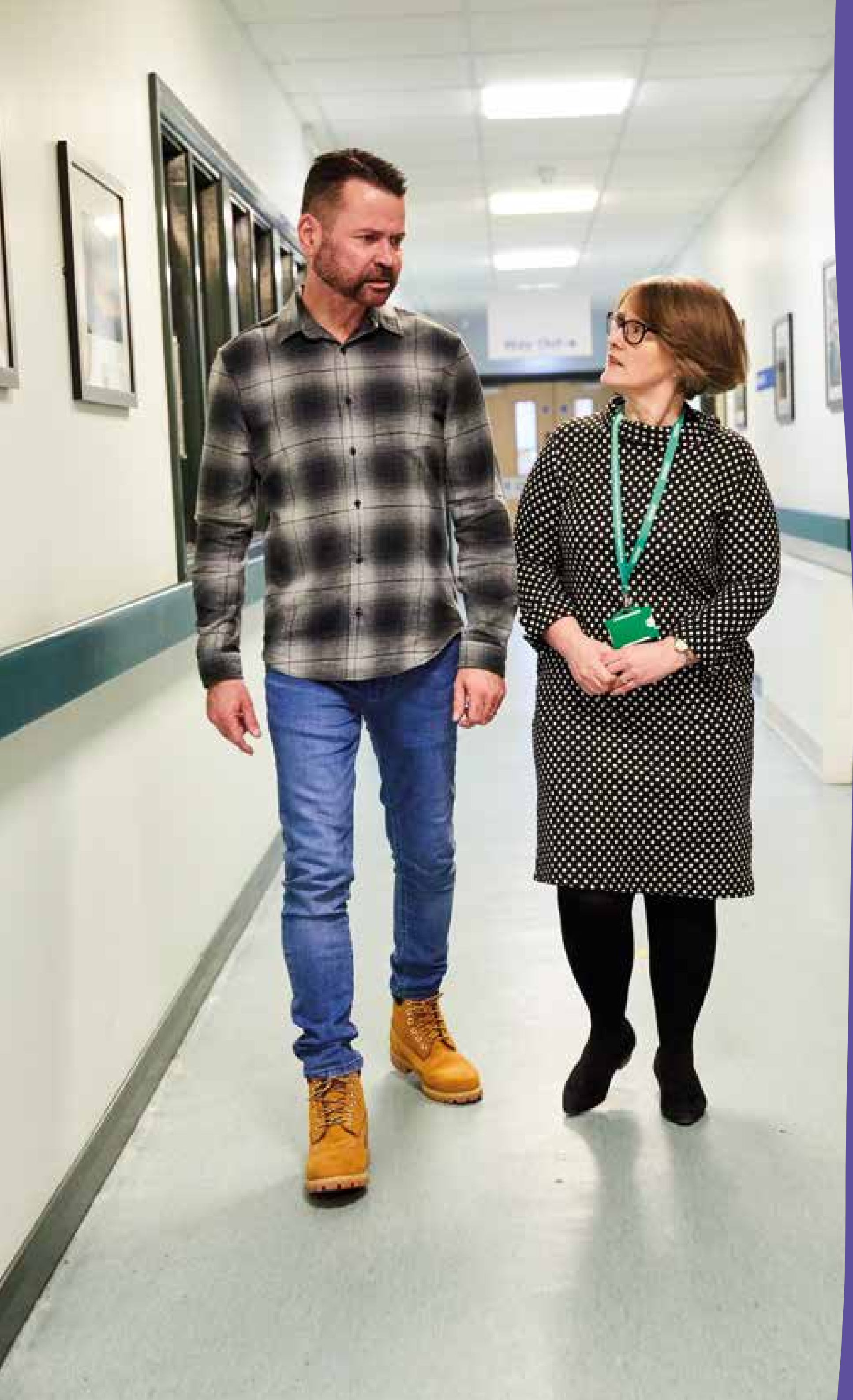
If you have more questions or would like to talk to someone, call the Macmillan Support Line free on **0808 808 00 00**, 7 days a week, 8am to 8pm, or visit **macmillan.org.uk**

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, eBooks, easy read, Braille, large print and translations. To order these, visit **macmillan.org.uk/otherformats** or call **0808 808 00 00**.

Contents


Way Out

CANCER TREATMENTS AND SIDE EFFECTS

What are side effects?

Side effects are problems you might get because of your cancer treatment. They may be mild, and not affect your life too much. But some can be serious and have a big impact on your life. Usually side effects get better during or after your treatment. But sometimes they are permanent. Sometimes side effects can appear after your treatment has finished.

Possible side effects depend on the type of treatment you have. You may only have a few of the ones we mention, or you may not have any side effects at all. Not having side effects does not mean your treatment is not working.

The thought of side effects can be frightening, but there are many ways to help manage them. There are also lots of people who can help you.

If you are frightened or worried about a side effect, do not wait until your next appointment to tell someone. When you start treatment, you will be given details of who to call. This is usually a 24-hour contact number at your hospital. It is a good idea to keep some details with you about your treatment, such as:

- the name of any drugs you are taking
- when you last had treatment
- when you had surgery
- how long you have been having radiotherapy.

This helps the hospital staff know which side effects you may get and what to do about them. Always ask your doctor, nurse or other healthcare professionals before using any medicines or therapies, in case they affect your cancer treatment.
This includes:

- medicines you have been prescribed
- medicines you buy in a shop or chemist
- vitamins
- herbal drugs
- complementary therapies.

Coping with cancer and the side effects of treatment can also affect you emotionally. We have more information in our booklet **How are you feeling? The emotional effects of cancer** (see page 74).

Treatments for cancer

There are many types of cancer treatment. You may have more than one type. Your doctor or specialist nurse will talk to you about the best options for you. When planning your treatment, they will look at your general health as well as the type and stage of the cancer.

The most commonly used treatments for cancer are:

- surgery – which is an operation to remove a tumour and nearby tissues that may contain cancer cells
- chemotherapy – which uses anti-cancer (cytotoxic) drugs to destroy cancer cells
- radiotherapy – which uses high-energy x-rays to destroy cancer cells
- hormonal therapies – which change the way hormones are produced, or affects how they work in the body
- targeted therapies – which use drugs to target something in or around the cancer cell that is helping it to grow and survive
- immunotherapies – which are treatments that use the immune system to find and attack cancer cells.

Some treatments are used to treat cancer in one area of the body. These are called local treatments. They include surgery and radiotherapy.

Other treatments are used to treat cancer throughout the body. These are called systemic treatments. They include chemotherapy, hormonal therapies, targeted therapies and immunotherapies.

There are some cancer treatments that are only used in specific types of cancer. Your doctor or nurse will talk to you about these if they are an option for you.

We have more information about different cancer treatments on our website. We also have more information in our booklet **Making treatment decisions** (see page 74).

Keeping notes about side effects

Some side effects of cancer treatment are serious and need urgent action. Your healthcare team will explain these to you. You will also be given a 24-hour telephone contact number.

Sometimes keeping a diary or record of side effects can be helpful, as it may show a pattern. It helps to include information such as:

- the date and time you had the side effect and how long it lasted
- where it started and if it was in one area or moved to other parts of the body
- anything you were doing that made it worse
- anything that made it better
- how well any treatments worked – including anything you tried that your healthcare team did not prescribe or recommend.

This information can help you talk about side effects with your doctor or nurse. Your hospital may give you a diary to use. Writing it down means you keep a record of the progress you have made and what you have learned. We have a diary you can use to record side effects (see pages 12 to 15).

You may have some side effects that you cannot record in this way, but you should still talk to your healthcare team about them.

Symptom diary

How to use your symptom diary

You may want to photocopy the diary, so you can use it more than once.

1. Write down the **date and time** when you have the symptom. You can do this as often as you need to.

2. Write down **where** each symptom is in your body. It could be in one area or different areas.

3. Describe what each symptom **feels like**. You could use the words on the opposite page to help you. Or you can use your own words.

4. Rate each symptom from **0 to 10**, where 0 means no symptom and 10 means severe (see opposite page).

5. Write down anything that makes the symptom **better**.

All this information will help you, your doctors and your nurses find the best way to manage your symptoms.

Where is the symptom?

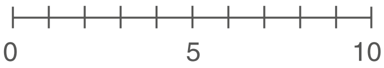
Is it in one part of your body or in more than one place? Does it start in one place and gradually spread during the day?

How would you describe the symptom?

You can use these words, or your own words, to describe your symptom:

- aching
- throbbing
- pricking
- painful
- uncomfortable
- comes and goes
- constant
- tiring
- exhausting
- bloated
- sweaty
- dry
- hot
- burning
- tight
- tickly
- scratchy
- embarrassing
- frustrating
- irritating
- worrying

Rate the symptom



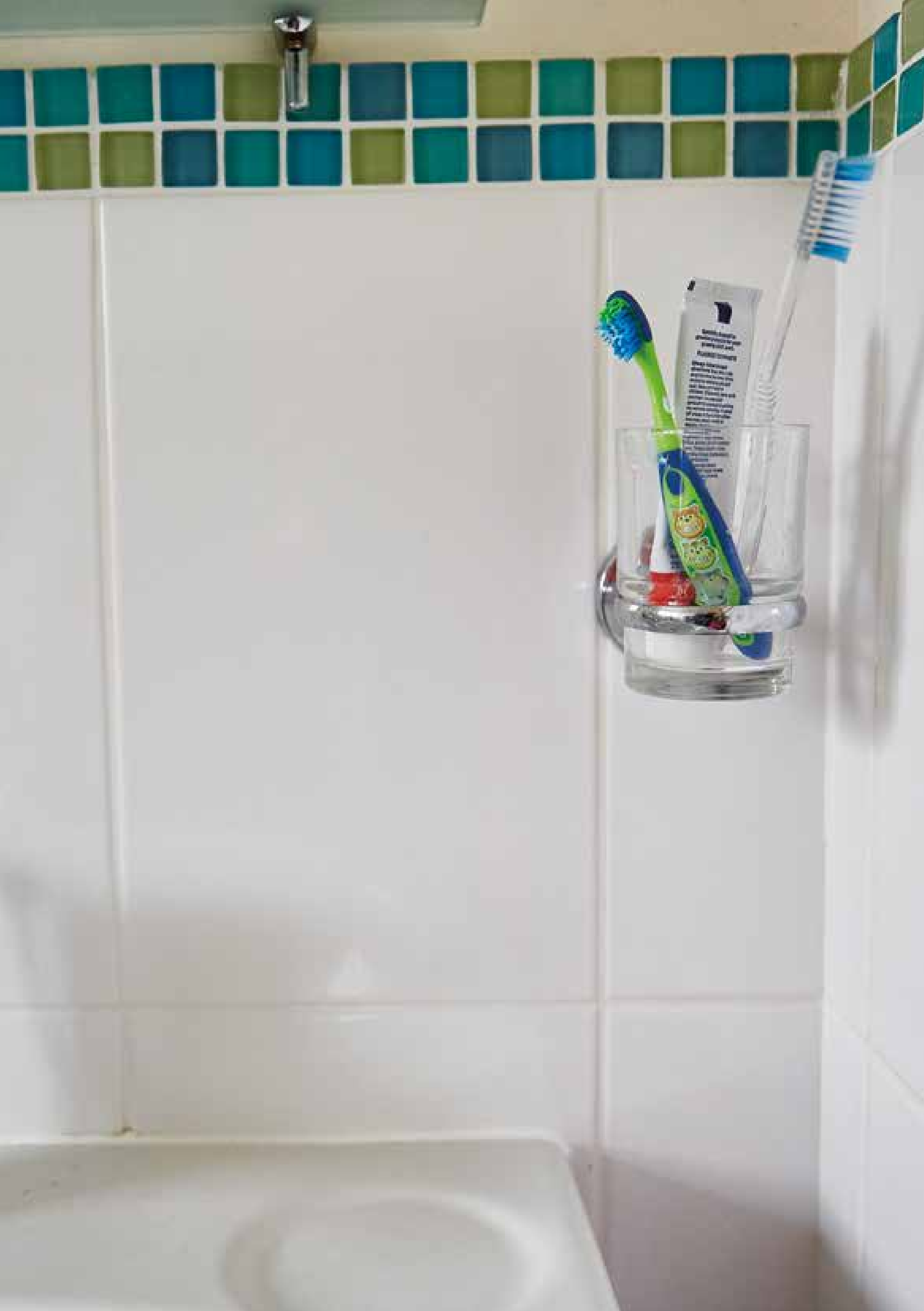
If you measured it on a scale of 0 to 10, how would you rate it? (Where 0 = no symptom and 10 = the symptom is severe.)

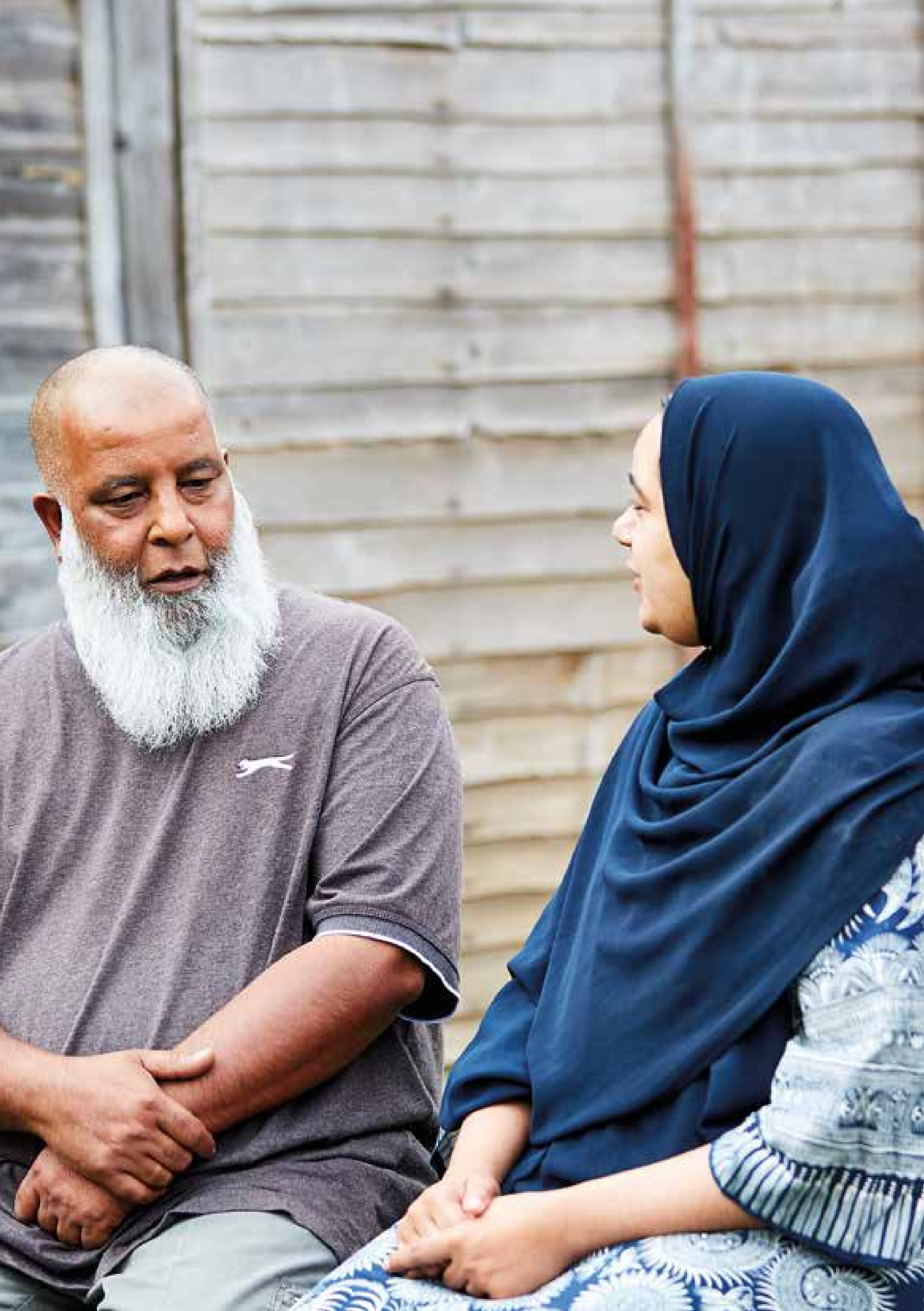
SYMPTOM DIARY

Date and time	Where is the symptom?	What is the symptom?	How would you rate it? (0 to 10)

How would you describe it?	What helps with it?

CHANGES TO YOUR BLOOD





Reduced number of blood cells

Some cancer treatments reduce the number of blood cells made in your bone marrow. This side effect is most common with chemotherapy and some targeted therapies and immunotherapies. It may also happen if radiotherapy is given to large areas of the body.

Blood cells are made in the bone marrow, which is in the middle of your bones. There are three different types of blood cell:

- white blood cells
- red blood cells
- platelets.

A reduction in the number of blood cells is usually temporary. Your doctors will check the number of blood cells in your blood regularly.

Low white blood cell count (neutropenia)

A low white blood cell count is called neutropenia. If the number of white blood cells is low, you are more likely to get an infection.

Your cancer doctor or nurse will tell you when your white blood cell levels are most likely to be low. It is important to take extra care to prevent infection at these times. Sometimes they may give you a drug to stimulate your bone marrow to make more white blood cells. This drug is called G-CSF.

If you have an infection, it is important to treat it as soon as possible. Contact the hospital straight away on the 24-hour contact number you have if:

- your temperature goes over 37.5°C (99.5°F)
- you suddenly feel unwell, even with a normal temperature
- you have symptoms of an infection.

Symptoms of an infection include:

- feeling shivery
- a sore throat
- a cough
- diarrhoea
- needing to pass urine often.

It is important to follow any specific advice your cancer treatment team gives you.

What you can do

- Avoid people who have an infection.
- Always wash your hands before preparing food and after going to the toilet.
- Ask your doctor or nurse if there are foods you should avoid.
- If you go out or go to work, try to avoid the busiest times of day and crowded places.

Low red blood cell count (anaemia)

Red blood cells contain haemoglobin (Hb), which carries oxygen around the body. A low red blood cell count is called anaemia. Symptoms of anaemia include feeling 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.

Sometimes a drug called erythropoietin is given instead of a blood transfusion. A nurse gives it to you as an injection under the skin.

Low platelet count

Platelets are cells that help the blood to clot. Your doctor or nurse will tell you if your platelets are low. They will explain what you need to be aware of.

Tell your doctor if you have any bruising or bleeding that you cannot explain. This includes:

- nosebleeds
- bleeding gums
- heavy periods
- tiny red or purple spots on the skin that may look like a rash.

Some people may need a drip to give them extra platelets. This is called a platelet transfusion.

What you can do

- Use a soft toothbrush when brushing your teeth.
- If you shave, use an electric razor.
- Take care to avoid injury, for example by wearing gloves if you are gardening.
- Avoid sports and activities that can lead to injuries.

TIREDNESS AND CANCER TREATMENT

Tiredness (fatigue)

Fatigue is a feeling of tiredness or exhaustion. Most cancer treatments can cause tiredness. This can vary from mild tiredness that is better after rest, to extreme tiredness (fatigue) where you have no energy at all. Tiredness usually improves gradually after treatment ends.

Tell your cancer doctor or nurse if you are feeling very tired. Some causes of tiredness can be treated. For example, there are things that can help if you are not sleeping well, are not eating enough or if you are anaemic.

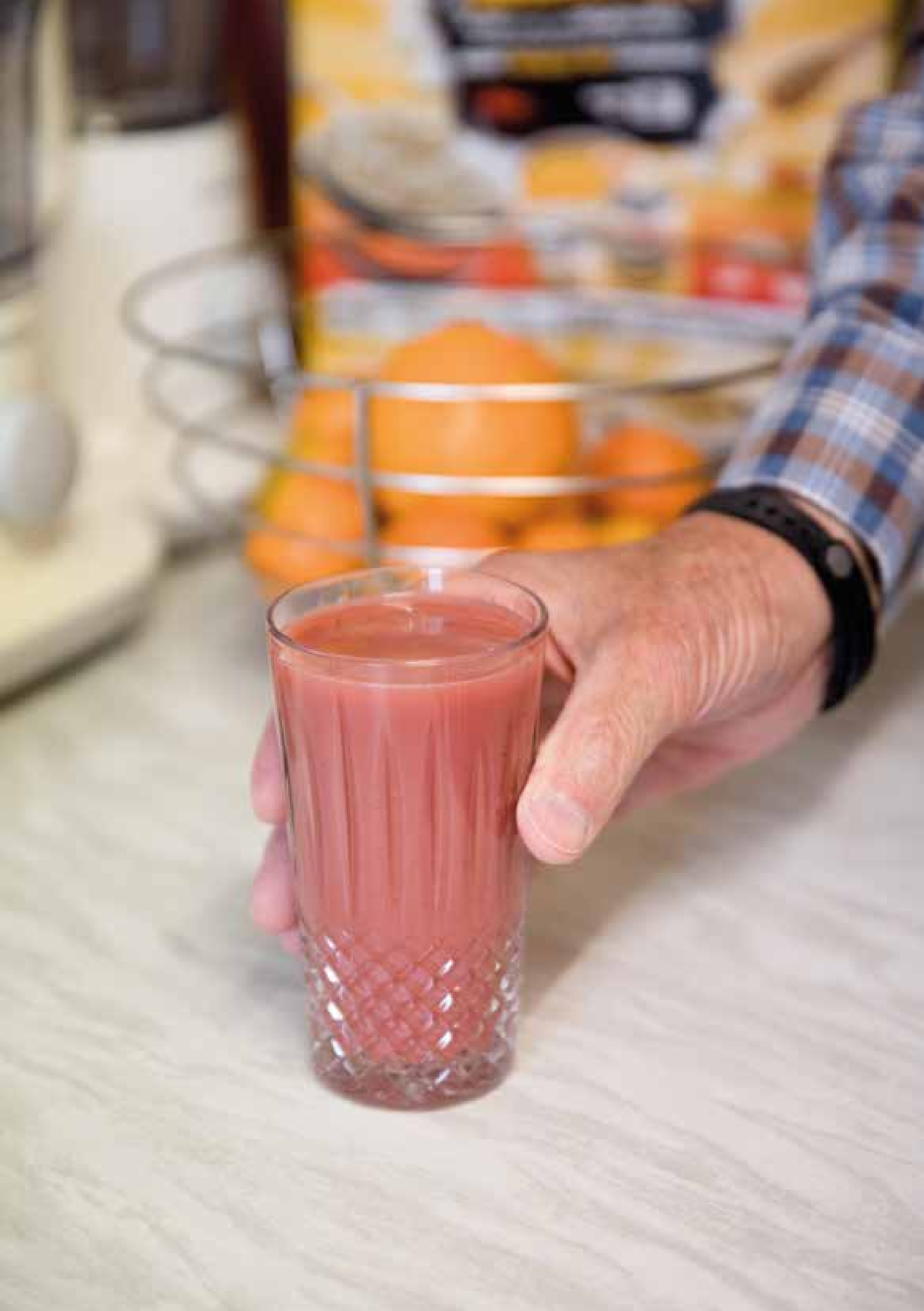
Our booklet **Coping with fatigue** has more information (see page 74). It is also available in audio if reading is tiring.

What you can do

- Try to keep to a regular sleep routine.
- If you have a big task, break it down into smaller, easier ones. Do a little bit each day rather than a lot at one time.
- Try to plan your day so that you have energy to do the things you want to do most.
- Try to keep active. Physical activity, such as gentle exercises and walking, can help.
- Ask for help with childcare, housekeeping, shopping and preparing meals.
- Prepare meals in advance and keep prepared food in the freezer ready to heat up.
- Talk to your employer about work. You could ask your manager about reducing your hours, working from home or changing your work duties.

Our booklet **Physical activity and cancer** has tips for keeping active. And our booklet **Work and cancer** explains your rights at work (see page 74).

MOUTH AND EATING PROBLEMS



Eating problems

Talk to your doctor or nurse if you have problems with your diet or appetite. They can refer you to a dietitian. If you are not in hospital, your GP or district nurse can refer you to a community dietitian. They can visit you at home.

Side effects such as a sore or dry mouth, tiredness, or feeling sick can make eating difficult. Eating problems include:

- loss of appetite – you may lose weight during treatment
- increased appetite – some medicines cause this and you may gain weight during treatment
- taste changes – some chemotherapy drugs cause this
- indigestion and heartburn – this is discomfort in the upper part of the tummy, usually after meals. Surgery to the stomach, radiotherapy or chemotherapy may cause this.

What you can do

Loss of appetite:

- Eat small amounts often instead of three big meals a day.
- Keep snacks handy, such as bags of nuts or dried fruit, or a bowl of grated cheese. These are high-calorie (energy) foods.
- If you have lost weight, add extra calories to your food. You can add butter, full-fat milk and cream.

> ‘Make sure that you stay hydrated. Small drinks little and often is the key. The same approach can be adopted for food. Don’t plan big meals, just go for small snacks throughout the day.’

Kegsy

Increased appetite

- Eat healthy foods such as fruit and vegetables instead of sweets and crisps.
- Try to have the same sized portions as you usually do.
- Drink less alcohol. Alcohol is high in calories and can contribute to weight gain.
- Be physically active.

Taste changes

- Season food or add spices and herbs to add flavour when cooking.
- Use strong, flavoured sauces or gravies to make food tastier.
- Eat sharp-tasting fresh fruit and juices or try sugar-free sweets to leave a pleasant taste in your mouth.
- Try cold foods as they may have a stronger taste than hot foods.
- Use plastic cutlery if you have a metallic taste in your mouth.
- Drink herbal or fruit teas if you do not like the taste of tea and coffee.

Indigestion and heartburn

- Eat small, frequent meals and snacks throughout the day, instead of two or three large meals. Avoid drinking when eating, as this can make you feel full.
- Antacid medicines can help relieve irritation from acid. Check with your doctor before taking these.
- Avoid food or drinks that irritate your stomach. These might include alcohol, fatty and spicy foods, fizzy drinks, coffee, chewing gum or hard-boiled sweets.
- Try to relax for at least 45 to 60 minutes after eating.
- Avoid eating for three or four hours before bed.

We have more information in our booklets:

- **Eating problems and cancer**
- **Managing weight gain after cancer treatment**.

See page 74 for ways to order these.

> **‘During treatment my appetite and tastebuds were a major concern, but we discovered that mild curries and cream cakes kept me going (not eaten together!).’**
>
> **Kevin**

Feeling sick (nausea)

Your doctor will usually prescribe anti-sickness (anti-emetic) drugs if sickness is a possible side effect of your treatment. Anti-sickness drugs work better when you take them regularly.

There are different types of anti-sickness medicine which work in different ways. Some may work better for you than others. You may be given more than one type of drug. Tell your doctor or nurse if the symptoms do not improve.

Some anti-sickness drugs can make you constipated (see page 52). Let your doctor or nurse know if this happens.

What you can do

- Try eating dry food, like crackers or biscuits, before you get up in the morning.
- Try having ginger products. It can help reduce feelings of sickness. You could try ginger tea or ginger biscuits.
- Sipping a fizzy drink can help – try ginger beer, mineral water or lemonade.
- Try eating peppermints or drinking peppermint tea.

‘I just ate anything I could.
My sister left a banana and
crackers next to my bed
to stave off morning nausea.
I found chicken noodle soup
was something I could eat.
I sucked boiled sweets and
I drank lots of mint tea.’

Anna

Mouth or throat problems

Some cancer treatments can damage the cells that line your mouth or throat. These treatments include chemotherapy, radiotherapy, targeted therapies and immunotherapies. Your specialist nurse and doctor will talk to you about how to care for your mouth during and after treatment.

Following a regular mouth care routine can help prevent or reduce mouth problems:

- Brush your teeth and gums every morning and evening. Use a small, soft-bristle or children's toothbrush and fluoride toothpaste. Replace your toothbrush regularly.
- Use a mouthwash to rinse your mouth at least four times a day, after meals. If your doctor prescribes a mouthwash for you, use it regularly as prescribed.
- If you have dentures, rinse them after meals. Clean your dentures with a toothbrush and toothpaste or denture paste. Take them out and soak them at night.
- Keep your lips moist by using Vaseline® or a lip balm.

If your treatment is likely to cause mouth problems, your doctor may prescribe mouthwashes for you to use. They may also prescribe a protective gel that can help with pain and discomfort. You may need to take regular painkillers and keep to a diet of soft foods.

Sore mouth or throat

A sore mouth and throat can be a side effect of radiotherapy to the head and neck, chemotherapy, targeted therapies or immunotherapies.

The lining of the mouth or throat can become thinner and you may get ulcers. If this happens, you are more likely to get an infection.

The most common infection is oral thrush. This usually looks like white patches or a white coating over the lining of the mouth, tongue or throat. Tell your doctor or nurse if you have a sore mouth or throat. They can give you treatments to help.

What you can do

- Follow a good mouth care routine.
- If your doctor prescribes a gel, spray, mouthwash or painkillers, use it as advised.
- Try to drink at least 2 litres (3½ pints) of fluid a day.
- Avoid alcohol, tobacco and foods that irritate your mouth.

Swallowing problems

Having a sore mouth and throat can make swallowing painful. Having radiotherapy or surgery to these areas can also affect swallowing.

Tell your doctor or nurse about any swallowing problems you have. They can give you information and support to help. They may refer you to a dietitian. If you have had surgery or radiotherapy to your mouth or throat, they may refer you to a speech and language therapist for assessment and treatment.

What you can do

- Eat softer foods.
- Blend or liquidise food.
- Use sauces and gravies.
- Chop meat and vegetables finely and cook in a casserole or stew them.

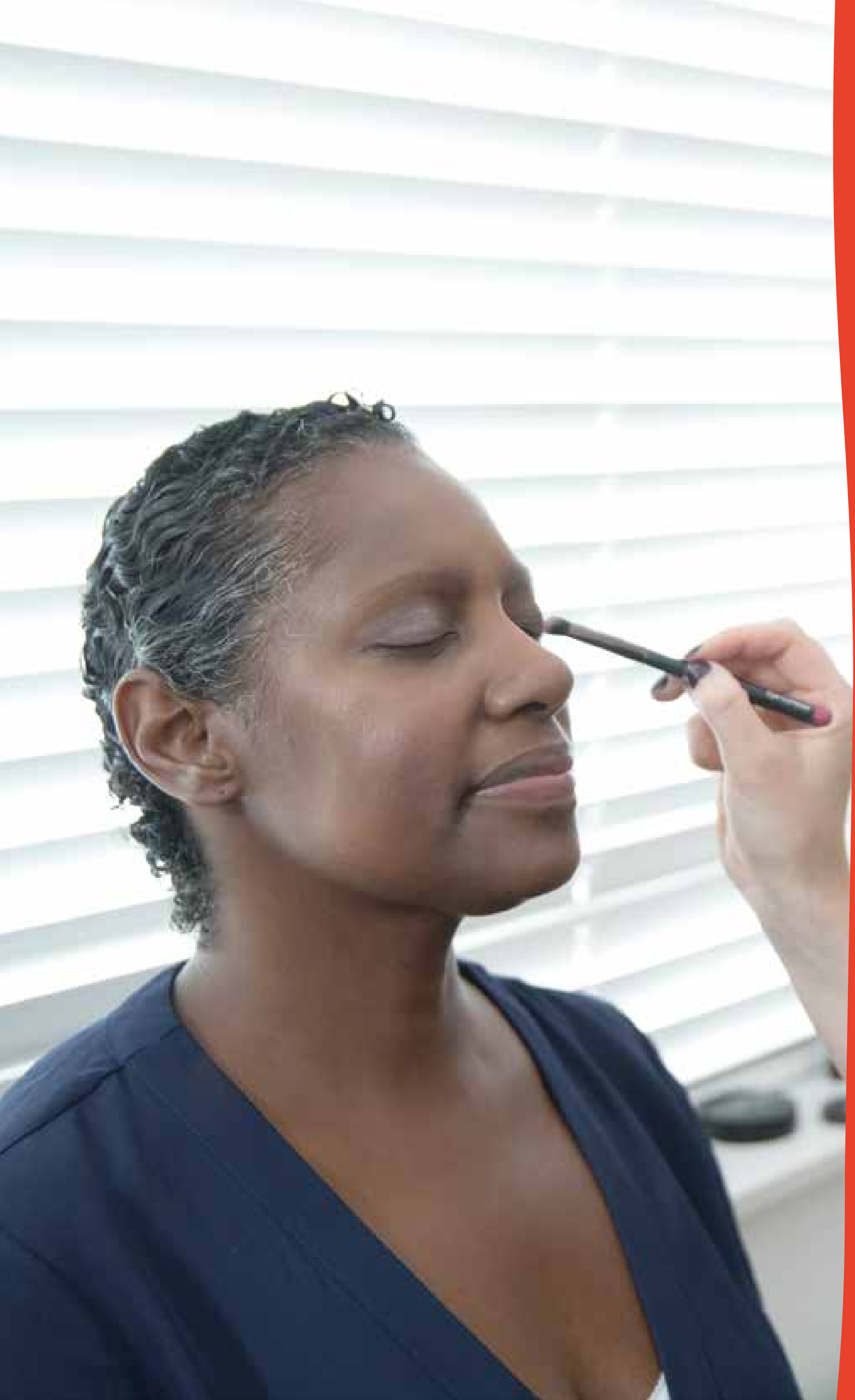
Dry mouth

Some cancer treatments can cause the salivary glands in the mouth to make less saliva, causing a dry mouth. This can be temporary or permanent. Lack of saliva can increase the risk of tooth decay or infections. Your doctor may prescribe an artificial saliva product to help moisten your mouth.

What you can do

- Keep your mouth moist. Carry a bottle of water with you to sip from.
- Keep your mouth clean. Brush your teeth with a soft toothbrush after every meal.
- Have regular dental checks.
- Try chewing sugar-free gum or sucking on sugar-free sweets to help you produce more saliva.
- Avoid alcohol, caffeine and cigarettes as these can make your mouth dry.
- Try soft, moist food such as soup, melon, ice cream and yogurt.
- Add gravies, sauces and dressings to moisten food.

We have more information about mouth and eating problems in our booklet **Eating problems and cancer** (see page 74).



CHANGES TO YOUR APPEARANCE

Hair loss and changes to hair

Some cancer treatments, such as chemotherapy, can cause hair loss. This may be from your head and other parts of your body. It is usually temporary. Other treatments can cause permanent hair loss in specific areas of your body. Sometimes you may not lose all your hair, but your hair can become thinner or more likely to break (brittle).

Not all chemotherapy will cause hair loss. The amount of hair loss depends on:

- the drug or combination of drugs given
- the dose
- the way your body reacts to the treatment.

We have more information about hair loss in our **Coping with hair loss** booklet (see page 74).

Your feelings

Losing your hair may make you feel vulnerable and less confident. For some people, hair loss is one of the hardest parts of having treatment. For others, it is not as bad as they expected. Your doctor or specialist nurse will tell you if you are likely to lose your hair. You may have other hair changes due to cancer treatment.

With most treatments, hair usually grows back or returns to how it was a few months after you have finished treatment.

‘I had a beautiful wig and didn’t have a bad hair day. But once I stopped wearing it, I had to accept changes like colour, style and texture. In the grand scheme of things it doesn’t seem significant, but I wanted to feel normal and look like myself again.’

Jacqueline

Scalp cooling

If you are having chemotherapy, you may be able to prevent hair loss on your head by using a cold cap (scalp cooling). This works by temporarily reducing the blood flow and the amount of the drug reaching the scalp. The cold cap only works for some types of chemotherapy drugs and does not always prevent hair loss. You can ask your doctor or nurse if one would be useful for you.

What you can do

These tips can help you care for dry, brittle or thinning hair.

- Only use gentle hair products and non-medicated shampoo.
- Only apply conditioner to the middle lengths of hair in small sections. Only use conditioner if your hair is long enough to do this.
- Use a wide-toothed comb when your hair is wet and more likely to get damaged.
- Use brushes that have wide-spaced prongs rather than full-bristled brushes.
- Pat your hair dry. Avoid using hair dryers, straighteners and curling tongs.
- Get professional advice if you are planning to colour or perm your hair.

Skin and nail changes

Some cancer treatments may affect your skin and nails. Their condition and appearance may change, depending on the treatment you are having. Tell your doctor or nurse about any skin changes.

Your cancer team may give you advice on looking after your skin. They will tell you if there are products you should use or avoid. It is very important to follow their advice.

We also give advice about caring for skin and nails in our booklet **Feel more like you** (see page 74).

What you can do

- Use moisturising soaps and creams if your skin is dry or itchy.
- Protect your skin from damage caused by scratching by keeping your nails clean and short, and trying to rub rather than scratch any itchy areas.
- If you are having radiotherapy, wear loose-fitting clothes around the area that has been treated. Only use soaps, deodorants and creams that have been advised by the radiotherapy staff.
- If you are out in the sun, use suncream with a high sun protection factor (SPF) on exposed areas. For some treatments you may be advised to use SPF50 suncream.

Sore hands and feet

Some chemotherapy or targeted therapy treatments can make the palms of your hands or the soles of your feet red or sore. This is called hand-foot (palmar-plantar) syndrome. Your healthcare team can tell you more.

What you can do

- Keep your hands and feet cool.
- Avoid hot water.
- Do not wear tight-fitting socks, shoes or gloves.
- Ask your doctor or nurse about creams that might help.

Nail changes

Some treatments may make your nails grow more slowly or become brittle or flaky. You may notice white lines appearing, or changes in the shape or colour of your nails. Nails can sometimes be painful or come off.

Tell your doctor or nurse about any changes to your nails. Your nails should go back to normal after cancer treatment ends.

What you can do

- Use an emery board rather than cutting your nails. File in one direction, not backwards and forwards.
- Wear protective gloves while doing housework or gardening.
- Wear comfortable shoes and cotton socks.
- Avoid wearing clothes that are tight-fitting or rub.

Lymphoedema

Lymphoedema is swelling caused by a build-up of fluid called lymph in the body tissues. It can happen if lymph nodes are removed or damaged by surgery or radiotherapy. Lymph nodes are part of the lymphatic system. This is part of the body's immune system, which helps us fight infections and other illnesses.

If you are affected, you will usually be referred to a lymphoedema specialist. They can offer advice on treatments and things you can do, such as:

- taking care of your skin
- doing regular exercise and carefully positioning the limb
- using compression garments, bandages or pumps
- a type of massage called simple lymphatic drainage (SLD).

Your doctor or nurse will tell you if your treatment may increase your risk of developing lymphoedema.

We have more information about lymphoedema in our booklet **Understanding lymphoedema** (see page 74).

> ‘I am not ashamed of how
> I look. That is who I am.
> I want to show positivity
> in the face of it.’
>
> **Sara**

Body image

Changes in your body can affect your body image. This is the picture you have in your mind of how you look. If your body has changed, you may feel differently about it.

You may feel upset about changes in your body or even feel you do not recognise yourself. These feelings are quite normal but can sometimes lead to anxiety or depression.

If you feel you need extra help to adjust to body changes, talk to your doctor or nurse. They may suggest you are referred to a trained counsellor or psychologist.

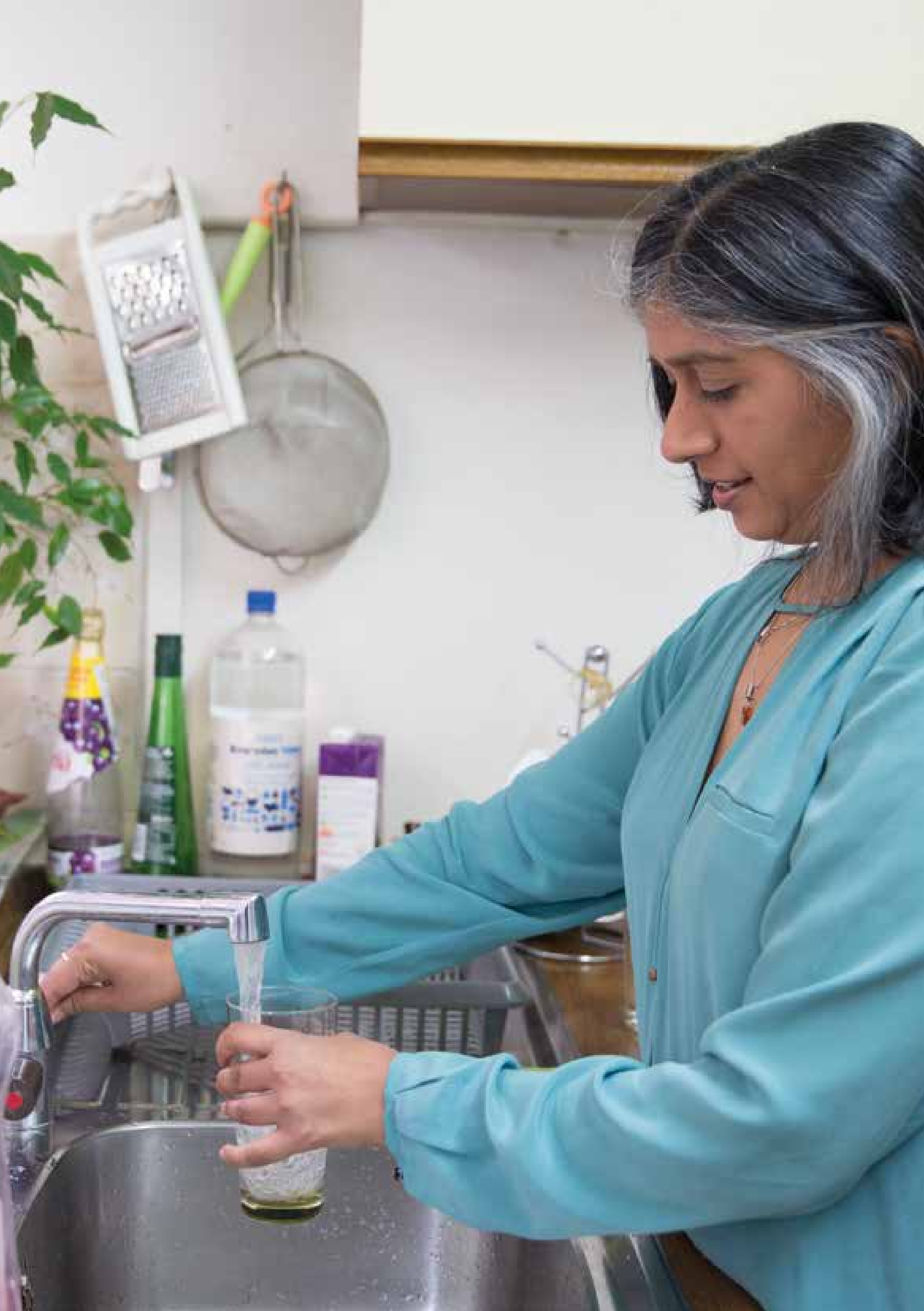
You can also talk to other people who are affected in a similar way. We have an Online Community where people can share their worries and thoughts at any time. To find out more, visit **macmillan.org.uk/community**

We also have more information in our booklets:

- **Feel more like you**
- **Body image and cancer**.

See page 74 for ways to order these.

BOWEL AND BLADDER CHANGES



Bowel changes

Bowel side effects are quite common during chemotherapy and can also happen with some targeted therapies, immunotherapy and hormonal therapies. Radiotherapy to the abdomen (tummy) or the pelvis can cause bowel changes. Surgery to the bowel or any organs involved in digestion, such as the stomach or pancreas, can also affect your bowel habits.

Tell your doctor or specialist nurse if you have any bowel changes. They can give advice and treatment to help.

Constipation

Constipation is when you are not able to open your bowels (poo) as regularly as you normally do. Your poo (stools) become harder and you may need to strain to move your bowels.

Constipation can be caused by:

- a lack of fibre in your diet
- not drinking enough fluids
- not being active
- some medicines – such as the painkillers morphine and codeine.

Everyone’s normal bowel pattern is different. But as a general guide, you should let your doctor or nurse know if you have not had a bowel movement for three days, unless this is usual for you. They can give you advice and treatment.

What you can do

- Try to have plenty of fibre in your diet. Fibre is in wholemeal bread, high-fibre breakfast cereals, fruit, vegetables, beans, lentils, grains and seeds.
- Drink at least 2 litres (3½ pints) of fluid a day.
- Do regular gentle exercise, such as walking. This will help keep your bowels moving.
- Try natural remedies for constipation. These include apricots, prunes, prune juice and syrup of figs.

> **‘I was told by my oncologist that constipation causes a lot of discomfort and upset to patients, and is not to be trivialised. I was in agony but managed to clear by myself. I ran a deep warm bath to help me relax and go.’**
>
> **Lorna**

Diarrhoea

Diarrhoea means passing more stools (poo) than is usual for you, or having watery or loose stools.

Chemotherapy, radiotherapy, targeted therapy, immunotherapy and surgery can all cause diarrhoea. Sometimes an infection or other medications, such as antibiotics, can also cause diarrhoea.

Diarrhoea can be a temporary, mild side effect, but for some people it can be severe. Tell your doctor if you have diarrhoea, or if it is getting worse. Your doctor may prescribe drugs to control it. It is important to take them exactly as they tell you to.

Severe constipation can sometimes be mistaken for diarrhoea (see page 52). If hard stools block the bowel, liquid stool sometimes passes around it. This is called overflow and can look like diarrhoea. Your doctor or nurse can examine you and check if you are constipated.

What you can do

- Drink plenty of liquids (at least 2 litres or 3½ pints a day) to replace the fluid lost with the diarrhoea
- Avoid alcohol and coffee. Also avoid fizzy drinks, which can cause wind and stomach cramps.
- Cut down on fibre from cereals, fruit and vegetables.
- Avoid milk and dairy products, until the diarrhoea has stopped. Avoid highly spiced or fatty foods.
- Eat small, frequent meals of light foods – such as white fish, chicken, eggs, white bread, pasta and rice.

If you are worried about going out, we have more information about bowel changes and accessing public toilets. You can also order our toilet card. You can show this card if you need urgent access to a toilet when you are out in public (see page 74).

Bladder changes

Some cancer treatments can change how your bladder works. Pelvic radiotherapy and some chemotherapy drugs can irritate the bladder. Surgery to the bladder or organs close to it can also cause problems.

Bladder problems might include:

- passing urine (peeing) more often than usual
- a burning feeling when you pass urine
- a feeling that you cannot wait when you need to pass urine
- blood in your urine.

Tell your doctor or specialist nurse if you have any bladder changes. They can give advice and treatment to help. They can take a urine sample to check for signs of infection.

What you can do

- Drink at least 2 to 3 litres (3½ to 5½ pints) of fluids a day to keep your urine a clear or pale-yellow colour.
- Avoid drinks such as tea, coffee, cola and alcohol. These can irritate your bladder and make symptoms worse.
- Try to avoid constipation (see page 52). This can make bladder problems worse.
- If you smoke, try to cut down or stop. Smoking can make the symptoms of bladder irritation worse.

If you are worried about going out, we have more information about bladder changes on our website. You can also order our toilet card for if you need urgent access to public toilets (see page 74).

SEX AND FERTILITY CHANGES

Changes to your sex life

Your sex life can be affected in different ways by treatment. You may have side effects or symptoms that change how your body works or looks. Or your feelings about how you look (body image) can affect your confidence and how you feel about sex.

Many changes caused by cancer treatment are temporary and usually get better after treatment. But sometimes people have to adjust to changes that last longer or are permanent.

Try not to feel embarrassed talking to your doctor or specialist nurse about changes to your sex life. They can tell you about ways of coping with these problems. This might include medicines, practical tips or counselling. If you feel embarrassed talking to your doctor or specialist nurse, there are organisations that can help (see pages 78 to 80).

We have more information about how cancer can affect your sex life in our booklet **Cancer and your sex life** (see page 74).

What you can do

If you have a partner, talk to them about how you feel. Explaining why you do not feel like having sex can reassure them that it is not because your feelings for them have changed.

You can cuddle and touch and explore new ways of giving each other pleasure.

If tiredness is a problem, it might help to think of times of day when you have more energy. This may make having sex easier and more enjoyable.

Try different positions to see which are most comfortable for you.

Fertility

Your doctor or specialist nurse will tell you if your treatment could affect your fertility. In some cases effects on fertility are temporary, but sometimes they are permanent.

Being told you have cancer and that treatment may make you infertile can be very difficult. For some people, the possibility of not being able to have children may be as difficult to accept as the cancer diagnosis. You may have planned to have children in the future, or you may not have thought much about it before treatment. There is practical and emotional help available. You may be able to store sperm, eggs or embryos for future fertility treatment.

What you can do

- Speak to your doctor or specialist nurse about how your fertility might be affected before treatment starts.
- If you have a partner, talk to them about the possible effects on your fertility.
- You can ask to be referred to a specialist fertility team.

We have more information about fertility in men and women in our booklets:

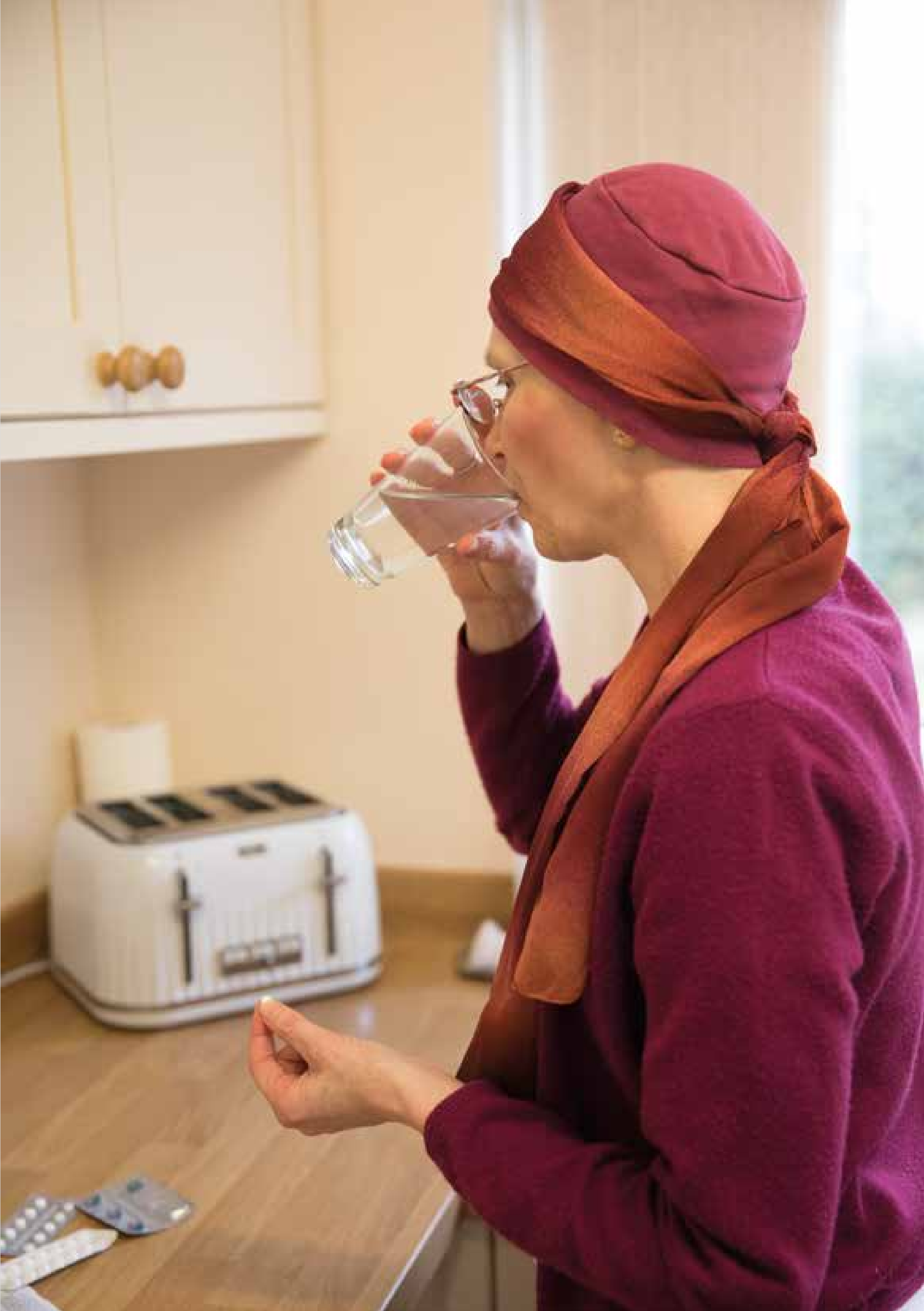
- **Cancer and fertility – information for men**
- **Cancer and fertility – information for women.**

See page 74 for ways to order these.

> ‘One of the most difficult times during this period was meeting a consultant to discuss my fertility. I never imagined I would have to consider my fertility at such a young age. I didn’t want to regret any decisions later. It was at that point I realised just how much motherhood meant to me.’

Rachel

OTHER SIDE EFFECTS



Hormonal changes

Hormones control many different processes in the body. Some cancer treatments can change the levels of hormones like oestrogen or testosterone. Your doctors will explain if you are likely to have hormonal changes. Symptoms can be temporary or permanent and can include:

- hot flushes and sweats
- mood changes
- lowered sex drive
- erection problems
- vaginal dryness.

What you can do

- Choose natural fabrics for your clothes and bedding, such as cotton. Wear layers, so you can remove clothes as needed.
- Keep the room cool, or use a fan.
- Have lukewarm showers and baths, rather than hot ones.
- Talk to your doctor or nurse if you are having changes to your mood or sex drive. They can offer you treatments and support, or refer you to a counsellor.
- Talk to your doctor about the treatments and support which are available for side effects such as erection problems and vaginal dryness.

Immunotherapy can affect how your body makes hormones. Your doctor or specialist nurse can tell you more about this.

We have more information about some of these hormonal changes. You can find them in our A to Z of impacts of cancer, on our website. Visit **macmillan.org.uk/cancer-information-and-support/impacts-of-cancer**

Changes in memory or concentration

Some people notice changes in memory or concentration and their ability to think clearly during cancer treatment. This is often called cancer-related cognitive changes (CRCC) or chemo brain. But changes in memory and concentration can also affect people who have not had chemotherapy.

Any problems with concentration or memory are usually temporary and mild. But while they last, they can be frustrating and interfere with your normal activities.

Common symptoms include:

- being unusually disorganised
- getting distracted more easily
- finding it hard to remember things
- feeling like you cannot think clearly.

What you can do

- Keep things simple and have a daily routine.
- Do not take on too much. Try to do one thing at a time and avoid distractions.
- Carry a notebook to write notes, lists and reminders in.
- Keep a calendar or diary to help you remember important dates and appointments.
- Keep your mind active by doing crosswords, word games or number puzzles like sudoku.
- Relaxation can help to reduce stress and may help to improve your memory and concentration.

Tell your doctor or nurse if you notice changes in your memory or ability to concentrate. They can give you more information and support.

> **‘My coping strategies included a notebook. This is the place to unload and put your feelings down, as well as any questions you need to ask. Then, when you talk with a consultant you won’t freeze or be overwhelmed by information.’**
>
> **Mike**

Numbness or tingling in hands and feet

Some cancer treatments can damage the nerves that carry messages between the brain and spinal cord (central nervous system) to the rest of the body (the peripheral nerves). This causes numbness or tingling in the hands or feet (peripheral neuropathy).

As well as numbness or tingling, you may find it hard to fasten buttons or do other fiddly tasks. You may have difficulty with balance or coordination.

It is important to let your doctor or nurse know if you have any of these symptoms. Peripheral neuropathy usually improves slowly a few months after the treatment has finished.

If your hands or feet are affected, it is important to protect them as much as possible.

What you can do

- Wear gloves when working with your hands. For example, wear gloves to garden or wash dishes.
- Take care to avoid burning your hands when cooking.
- Check the temperature of water with your elbow to make sure it is not too hot before washing.
- Wear clothes without buttons or zips.
- Wear gloves and warm socks in cold weather.
- Avoid walking around barefoot. Wear well-fitting shoes or boots.

Blood clots (thrombosis)

Some cancer treatments can increase your risk of developing a blood clot.

Blood clots can be very serious if they are not treated. If you have a blood clot, you may need drugs to thin your blood. If you are at risk, your doctor may prescribe medicines to stop blood clots forming.

Symptoms of a blood clot depend on where it is in the body. A clot can form in:

- the leg (usually in the calf) or arm. This may cause pain, swelling, heat and redness in the area. This is called a deep vein thrombosis (DVT).
- the lungs. This may cause shortness of breath or chest pain. This type of blood clot is called a pulmonary embolism (PE).

There are things you can do to help lower your risk of blood clots. These include keeping active and drinking plenty of fluids to keep hydrated.

If you are worried about your risk of blood clots, talk to your doctor or nurse. They can tell you about things that may reduce your risk.

Your data and the cancer registry

When you are diagnosed with cancer in the UK, some information about you, your cancer diagnosis and your treatment is collected in a cancer registry. This is used to plan and improve health and care services. Your hospital will usually give this information to the registry automatically. There are strict rules to make sure the information is kept safely and securely. It will only be used for your direct care or for health and social care planning and research.

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

FURTHER INFORMATION

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
- eBooks
- 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**.

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. Our cancer support specialists 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.

Call us on **0808 808 00 00** or email us via our website, **macmillan.org.uk/talktous**

Information centres

Our information and support centres are based in hospitals, libraries and mobile centres. There, you can speak with someone face to face. Visit one to get the information you need, or if you would like a private chat, most centres have a room where you can speak with someone alone and in confidence.

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

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 to bring people together in their communities and online.

Support groups

Whether you are someone living with cancer or a carer, 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**

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**

The Macmillan healthcare team

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.

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.

Financial guidance

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

Help accessing benefits

Our benefits advisers can offer advice and information on benefits, tax credits, grants and loans. They can help you work out what financial help you could be entitled to. They can also help you complete your forms and apply for benefits.

Macmillan Grants

Macmillan offers one-off payments to people with cancer. A grant can be for anything from heating bills or extra clothing to a much-needed break.

Call us on **0808 808 00 00** to speak to a financial guide or benefits adviser, or to find out more about Macmillan Grants.

We can also tell you about benefits advisers in your area. Visit **macmillan.org.uk/financialsupport** to find out more about how we can help you with your finances.

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 (Monday to Friday, 8am to 6pm).

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

Cancer Black Care

Tel **020 8961 4151**
www.cancerblackcare.org.uk
Offers information and support for people from Black and ethnic minority communities who have cancer. Also supports their friends, carers and families.

Maggie's

Tel **0300 123 1801**
Email **enquiries@maggies.org**
www.maggies.org
Provides 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** (Mon to Fri, 10am to 2pm)
Email **helpline@pennybrohn.org.uk**
www.pennybrohn.org.uk
Offers physical, emotional and spiritual support across the UK, using complementary therapies and self-help techniques.

Counselling and support

British Association for Counselling and Psychotherapy (BACP)

Tel **0145 588 3300** (Mon to Fri, 9am to 5pm)
Email **bacp@bacp.co.uk**
www.bacp.co.uk
Signposts people to services and counsellors across the UK.

Mind

Helpline **0300 123 3393** (Mon to Fri, 9am to 6pm)
Text **86463**
Email **info@mind.org.uk**
www.mind.org.uk
Provides information, advice and support to anyone with a mental health problem through its helpline and website.

Equipment and support

British Red Cross

Tel **0344 871 11 11**
Email **contactus@redcross.org.uk**
www.redcross.org.uk
Offers a range of services such as care in the home, a medical equipment loan service and a transport service.

Living Made Easy

Helpline **0300 999 0004** (Mon to Fri, 10am to 5pm)
www.livingmadeeasy.org.uk
Provides advice about all types of disability equipment and mobility products.

Scope

Helpline **0808 800 3333** (Mon to Sat, 8am to 8pm, and Sun 10am to 6pm)
Textphone Use Type Talk by dialling **18001** from a textphone followed by **0808 800 3333.**
Email **helpline@scope.org.uk**
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.

LGBT-specific support

LGBT Foundation

Tel **0345 330 3030** (Mon to Fri, 10am to 6pm)
Email **info@lgbt.foundation**
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.

Support for carers

Carers Trust

Tel **0300 772 9600** (Mon to Fri, 9am to 5pm)
Email **info@carers.org**
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 (England, Scotland, Wales) **0808 808 7777**
(Mon to Fri, 9am to 6pm)
Helpline (Northern Ireland) **028 9043 9843**
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.

Cancer registries

The cancer registry

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 one in each country in the UK:

National Cancer Registration and Analysis Service

Tel **020 7654 8000**
Email **enquiries@phe.gov.uk**
www.ndrs.nhs.uk
Tel (Ireland) **021 4318 014**
www.ncri.ie

Scottish Cancer Registry

www.ndrs.nhs.uk/cancer-registration-your-rights-and-privacy

Welsh Cancer Intelligence and Surveillance Unit (WCISU)

Tel **02920 104278**
phw.nhs.wales/services-and-teams/welsh-cancer-intelligence-and-surveillance-unit-wcisu/

Northern Ireland Cancer Registry

Tel **028 9097 6028**
Email **nicr@qub.ac.uk**
www.qub.ac.uk/nicr

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 Chief Medical Editor, Prof Tim Iveson, Macmillan Consultant Medical Oncologist.

With thanks to: Anita Killingworth, Macmillan Oncology Nurse Consultant and Lead Cancer Nurse; Jenny King, Chemotherapy Nurse Specialist; Nicola Robottom, Advanced Nurse Practitioner and CUP Specialist Nurse; Dr Richard Simcock, Clinical Oncologist; and Dr Anna Marie Stevens, Nurse Consultant in Palliative Care.

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 side effects information. If you would like more information about the sources we use, please contact us at **cancerinformationteam@macmillan.org.uk**

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Yarbro et al. Cancer Symptom Management. 4th edition. Jones and Bartlett Publishers. 2013.

Your notes and questions

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

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

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.

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?

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

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

Call us to find out more 0300 1000 200
macmillan.org.uk/getinvolved

Please fill in your personal details

Mr/Mrs/Miss/Other

Name

Surname

Address

Postcode

Phone

Email

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(Please delete as appropriate)

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OR debit my:
Visa / MasterCard / CAF Charity Card / Switch / Maestro

Card number
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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**

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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

MACMILLAN
CANCER SUPPORT

This booklet is about the possible side effects of cancer treatment. It is for anyone who is having, or thinking about having, treatment for cancer.

The booklet explains some common side effects of different cancer treatments. It also describes some ways to manage side effects. No one will have all these side effects, but some people may have more than one.

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, eBooks, easy read, Braille, large print and translations. To order these, visit **macmillan.org.uk/otherformats** or call our support line.

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