

UNDERSTANDING SECONDARY CANCER IN THE BONE



Now that I have a plan and a hope to get back to work, things are looking a bit brighter. I will stay positive and get on with things.

Emma, diagnosed with breast and secondary bone cancer



About this booklet

This booklet is about secondary cancer in the bone. This is cancer that has spread to the bone, from a cancer elsewhere in the body. It may also be called secondary bone cancer or metastatic cancer in the bone.

Secondary cancer in the bone is not the same as primary bone cancer. Primary bone cancer is where the cancer starts in the bone. We have more information about this in our booklet **Understanding primary bone cancer**.

This booklet is for anyone who has secondary cancer in the bone. There is also information for carers, family members and friends.

The booklet explains:

- what secondary cancer in the bone is
- symptoms and diagnosis
- the different treatment options
- coping with secondary cancer in the bone.

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.

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**.

How to use this booklet

The 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.

We have included quotes from people who have had secondary cancer in the bone, which you may find helpful. This includes Emma, who is on the cover of this booklet.

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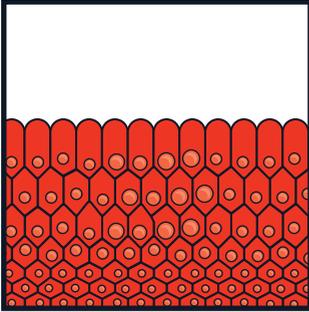
What is cancer?

Cancer starts in cells in our body. Cells are tiny building blocks that make up the organs and tissues of our bodies. They divide to make new cells in a controlled way. This is how our bodies grow, heal and repair. Cells receive signals from the body telling them when to divide and grow and when to stop growing. When a cell is no longer needed or cannot be repaired, it gets a signal to stop working and die.

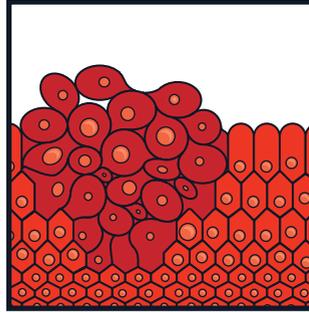
Cancer develops when the normal workings of a cell go wrong and the cell becomes abnormal. The abnormal cell keeps dividing, making more and more abnormal cells. These eventually form a lump (tumour). Not all lumps are cancerous. Doctors can tell if a lump is cancerous by removing a small sample of tissue or cells from it. This is called a biopsy (see pages 25 to 26). The doctors look at the sample under a microscope to look for cancer cells.

Cells forming a tumour

Normal cells



Cells forming a tumour



A lump that is not cancerous (benign) may grow, but cannot spread to anywhere else in the body. It usually only causes problems if it puts pressure on nearby organs.

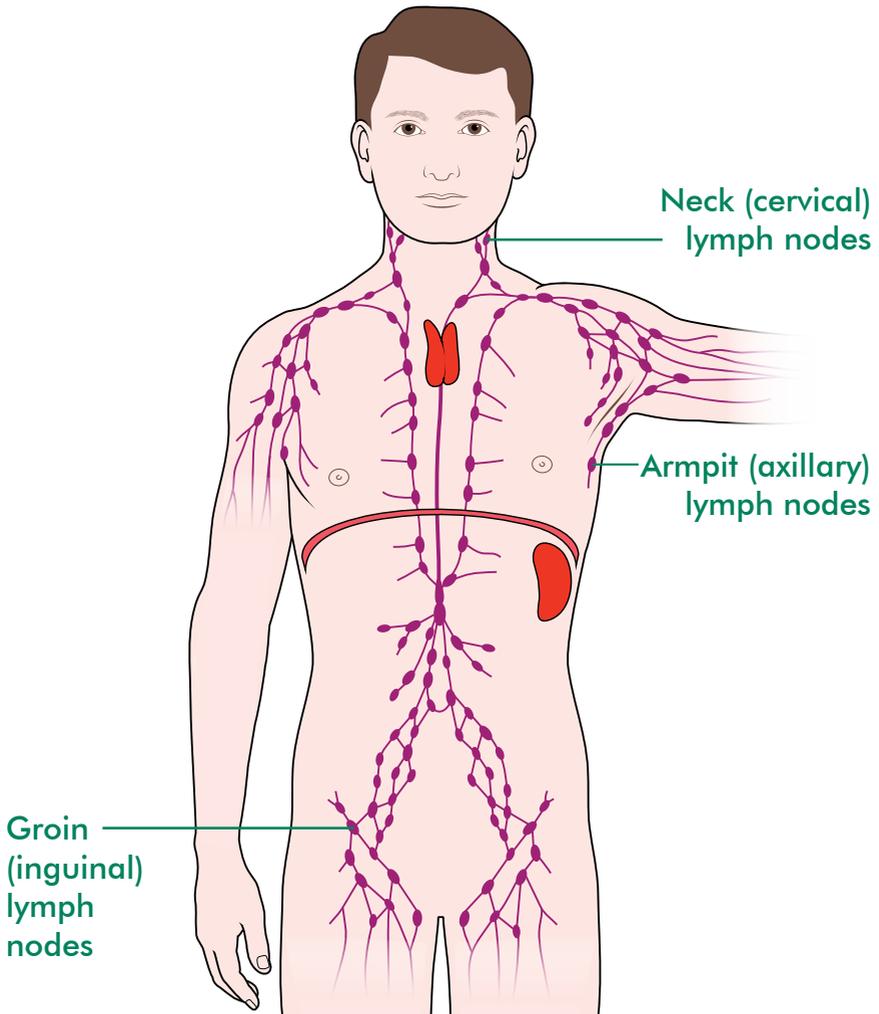
A lump that is cancerous (malignant) can grow into nearby tissue. Sometimes, cancer cells spread from where the cancer first started (the primary site) to other parts of the body. The cells can travel through the blood or lymphatic system (see page 8). When the cells reach another part of the body, they may start to grow and make another tumour. This is called a secondary cancer (metastasis).

The lymphatic system

The lymphatic system helps protect us from infection and disease. It also drains lymph fluid from the tissues of the body, before returning it to the blood. The lymphatic system is made of fine tubes called lymphatic vessels that connect to groups of lymph nodes (sometimes called lymph glands) throughout the body.

Lymph nodes are small and bean-shaped. They filter bacteria (germs) and disease from the lymph fluid. When you have an infection, lymph nodes often swell as they fight the infection.

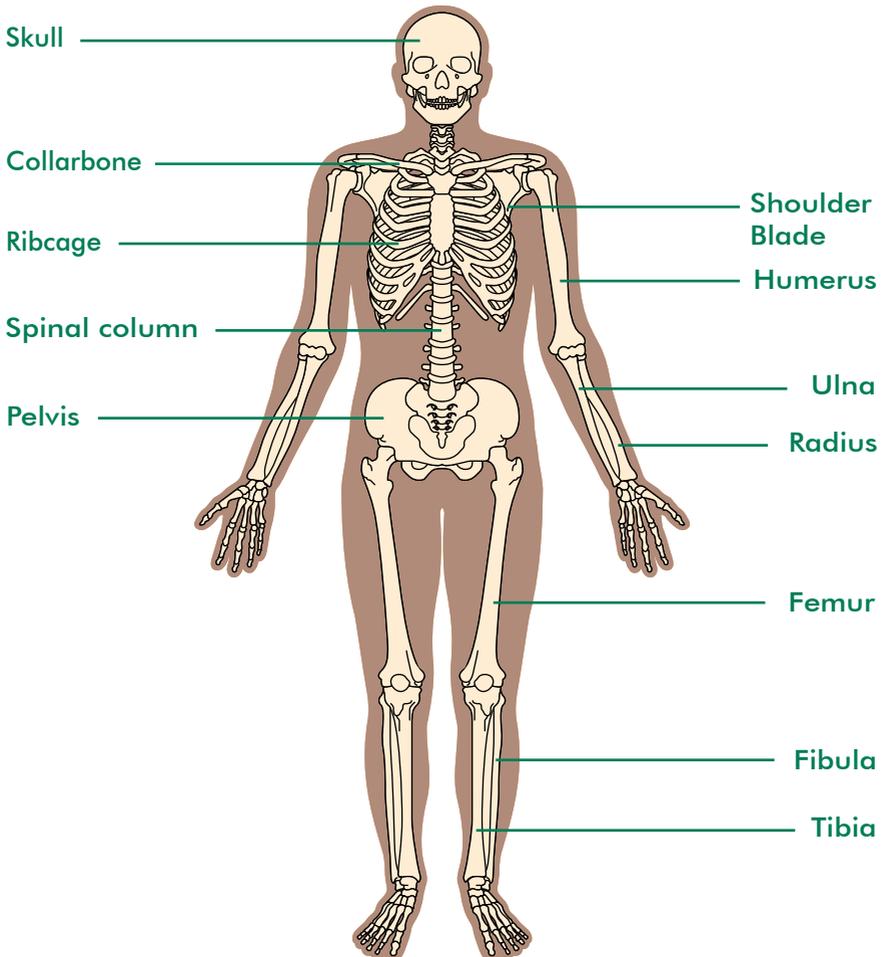
The lymphatic system



The bones

The human skeleton is made up of more than 200 bones of different shapes and sizes.

The human skeleton



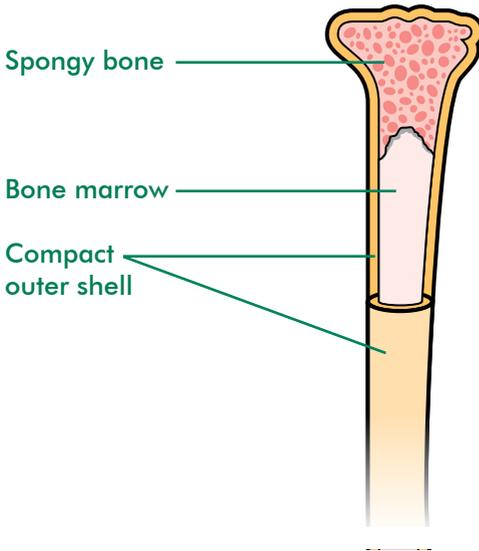
Bones are made of collagen (a type of protein) and minerals such as calcium and phosphate. The combination of collagen and minerals makes the bones strong.

Bones do lots of important things:

- They support our bodies. The joints at the end of bones act as levers. This so we can move around.
- They protect parts of our bodies from injury. For example, the ribs protect the heart and lungs, and the skull protects the brain.
- They store important minerals that our bodies use, such as calcium.
- Some bones are filled with a soft, spongy material called bone marrow. This makes blood cells.

The joints at the end of bones are covered in cartilage. This allows joints to move smoothly.

The structure of a long bone



Our bones are constantly breaking down and being replaced with new bone. This helps keep their strength and shape. There are 2 main types of cell that break down and replace bone:

- Osteoclasts – these break down and remove old bone.
- Osteoblasts – these cells make new bone.

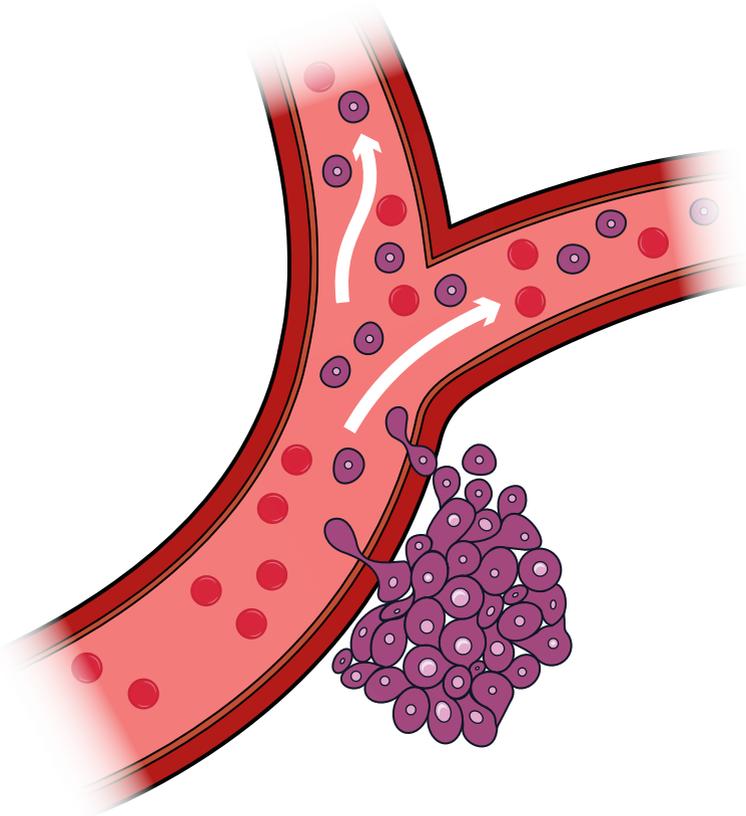
A secondary bone cancer can occur in any bone in the body (see page 10). But the most commonly affected bones are the:

- spine
- ribs
- pelvis
- upper bones of the arms (humerus) and legs (femur)
- skull.

Secondary cancer in the bone

The place where a cancer starts in the body is called the primary cancer. Sometimes cells break away from the primary cancer and are carried in the bloodstream to another part of the body. The cancer cells may settle in that part of the body and form a new tumour. If this happens, it is called a secondary cancer or a metastasis.

Cancer cells entering the bloodstream



Secondary cancer in the bone happens when cancer cells spread to the bone from a primary tumour somewhere else in the body.

Sometimes only one area of bone is affected. But in most people the cancer will spread to a number of areas.

Secondary cancers in the bone are sometimes called bone secondaries or bone metastases.

Any type of cancer can spread to the bone. But the most common types that do are:

- breast cancer
- prostate cancer
- lung cancer
- kidney cancer
- thyroid cancer.

Myeloma is a type of blood cancer that develops from cells in the bone marrow and often affects the bones.

People who develop secondary cancer in the bone usually know they have a primary cancer. But sometimes, a secondary bone cancer is found before or at the same time as the primary cancer. Occasionally the primary cancer cannot be found. This is called a cancer of unknown primary. We have a booklet called **Understanding cancer of unknown primary** (see page 90).

Cause

The cause of secondary cancer in the bone is always a primary cancer somewhere else in the body. We do not fully understand why some people develop secondary cancer in the bone and others do not.

Signs and symptoms of secondary bone cancer

Bone pain

The most common symptom of secondary cancer in the bone is pain. The amount of pain will vary from person to person. The pain may get worse over time, but there are lots of ways of managing pain.

Let your doctor or nurse know if you have pain:

- in one or more areas that lasts for more than 1 to 2 weeks
- when you are moving
- that wakes you up at night.

Weak bones

Cancer in the bones can weaken them. Sometimes a bone weakened by cancer will break (fracture). This may happen even if you have not had an accident or fall. This is known as a pathological fracture.

Raised calcium level

Secondary cancer in the bone may cause increased amounts of calcium to be released from the bone into your blood. A raised level of calcium in the blood is called hypercalcaemia (see page 59). Hypercalcaemia may show up on a routine blood test. But it can also cause symptoms which may include:

- tiredness
- feeling sick (nausea)
- constipation
- increased thirst
- confusion.

If you develop any of these symptoms, contact the hospital straight away for advice.

Pressure on the spinal cord

Secondary cancer in the bones of the spine can put pressure on the nerves of the spinal cord. This is called malignant spinal cord compression (MSCC). It can cause symptoms which may include:

- back or neck pain
- muscle weakness
- numbness and weakness in the legs
- problems controlling your bladder or bowels.

If you have weakness, pain, tingling or numbness in your legs or arms, it is very important to tell your doctor or specialist nurse straight away so your symptoms can be checked. The earlier MSCC is diagnosed, the better the chances are of the treatment helping. We have more information about MSCC and its symptoms on our website.

If you cannot contact your specialist team and you develop weakness in your legs or arms or problems controlling your bowel or bladder, go to your local emergency department (A&E) straight away.

Effects on the blood

Sometimes secondary cancer in the bone can affect the way the bone marrow works.

The bone marrow produces different types of blood cells:

- red blood cells, which carry oxygen around the body
- white blood cells, which help to fight infection
- platelets, which help the blood to clot and prevent bleeding.

If the bone marrow does not produce enough red blood cells, you may become anaemic. This can make you feel tired and breathless. If you have too few white blood cells, you will be more prone to infection. And if you have a low platelet count, you may have bruising or bleeding.



DIAGNOSING SECONDARY CANCER IN THE BONE

How secondary bone cancer is diagnosed

20

How secondary bone cancer is diagnosed

You may see your GP or your cancer specialist. They will ask you about any symptoms you have and may examine you. You may have some of the following tests and scans:

Blood tests

You may have a blood test to check your general health and the level of calcium in your blood.

Bone x-ray

Bone x-rays can show changes in the bone such as a fracture, and may show a secondary bone cancer. Not all secondary bone cancers can be seen on an x-ray.

Bone scan

Bone scans show all the bones in the body. This scan is more sensitive than an x-ray and shows any abnormal areas of bone more clearly.

A small amount of a mildly radioactive substance is injected into a vein, usually in your hand or arm. Abnormal bone absorbs more radioactivity than normal bone, so these areas show as abnormal on the scan. The abnormal areas are often referred to as hot spots.

The level of radioactivity used in the scan is very small and does not cause any harm to your body. But you will be advised to avoid close contact with pregnant women or young children for a few hours after the scan.

After you have the injection, you will need to wait 2 to 3 hours before you have the scan. The scan itself may take up to an hour.

If hot spots do show up on a bone scan, it is not always clear whether they are caused by cancer or by other conditions such as arthritis.

Sometimes doctors may use other scans such as a CT, PET-CT or MRI (see pages 22 to 24). These can help to show whether changes on the bone scan are caused by cancer or another condition. They can also check whether any other areas have been affected.

CT scan

A CT scan takes a series of x-rays, which build up a three-dimensional picture of the inside of the body. The scan takes 10 to 30 minutes and is painless. It uses a small amount of radiation, which is very unlikely to harm you and will not harm anyone you come into contact with.

You may be given a drink or injection of a dye, which allows particular areas to be seen more clearly. This may make you feel hot all over for a few minutes. It is important to let your doctor know if you are allergic to iodine or have asthma, because you could have a more serious reaction to the injection.

You will probably be able to go home as soon as the scan is over.

MRI scan

This test uses magnetism to build up a detailed picture of areas of your body. The scanner is a powerful magnet so you may be asked to complete and sign a checklist to make sure it is safe for you. The checklist asks about any metal implants you may have, such as a pacemaker, surgical clips or bone pins, etc.

You should also tell your doctor if you have ever worked with metal or in the metal industry as very tiny fragments of metal cansometimes lodge in the body. If you do have any metal in your body, it is likely that you will not be able to have an MRI scan. In this situation, another type of scan can be used. Before the scan, you will be asked to remove any metal belongings including jewellery.

Some people are given an injection of dye into a vein in the arm, which does not usually cause discomfort. This is called a contrast medium and can help the images from the scan to show up more clearly. During the test, you will lie very still on a couch inside a long cylinder (tube) for about 30 minutes. It is painless but can be slightly uncomfortable, and some people feel a bit claustrophobic. It is also noisy, but you will be given earplugs or headphones. You can hear, and speak to, the person operating the scanner.

PET/CT scan

This is a combination of a CT scan, which takes a series of x-rays to build up a three-dimensional picture, and a positron emission tomography (PET) scan. A PET scan uses low-dose radiation to measure the activity of cells in different parts of the body.

PET-CT scans give more detailed information about the part of the body being scanned. You may have to travel to a specialist centre to have one. You cannot eat for six hours before the scan, although you may be able to drink. A mildly radioactive substance is injected into a vein, usually in your arm. The radiation dose used is very small. You will wait for at least an hour before you have the scan. It usually takes 30 to 90 minutes. You should be able to go home after the scan.

'I went for a CT and a PET scan and that was how I found that it had spread to my shoulder bone.'

Bianca

Bone sample (bone biopsy)

Occasionally, your doctors may still not be sure what is causing the changes in the bone. In this case, you may need to have a small sample of cells taken from the affected bone. This is called a biopsy. Bone is very hard, so the piece that is removed has to be softened before it can be examined under a microscope. The softening process takes several days, so you may have to wait 10 to 14 days for the results of the biopsy. There are two ways of taking a bone biopsy:

Core needle biopsy

Before the biopsy, your doctor will give you an injection of local anaesthetic into your skin and around your bone to numb it. They pass a special biopsy needle through your skin into the bone, and take a small amount of the bone tissue. They may take several samples.

If the doctor cannot feel the bone lump or if it is deep inside the body, the doctor may use an ultrasound or CT scanner to help them guide the needle into the right place.

You will usually be awake during a core needle biopsy, although you may be given a sedative to make you feel more relaxed and drowsy. Sometimes you may have the biopsy done with a general anaesthetic instead.

The procedure does not take very long. You may have it as an outpatient and be able to go home afterwards. You are likely to be sore for a few days afterwards. Your doctor will prescribe painkillers for you if you need them.

Surgical biopsy

Very occasionally a small piece of bone is removed while you have a general anaesthetic.

The doctor makes a small cut in your skin above the affected bone so that the biopsy can be taken. They will give you more information if you need a surgical biopsy.

Diagnosing the primary cancer

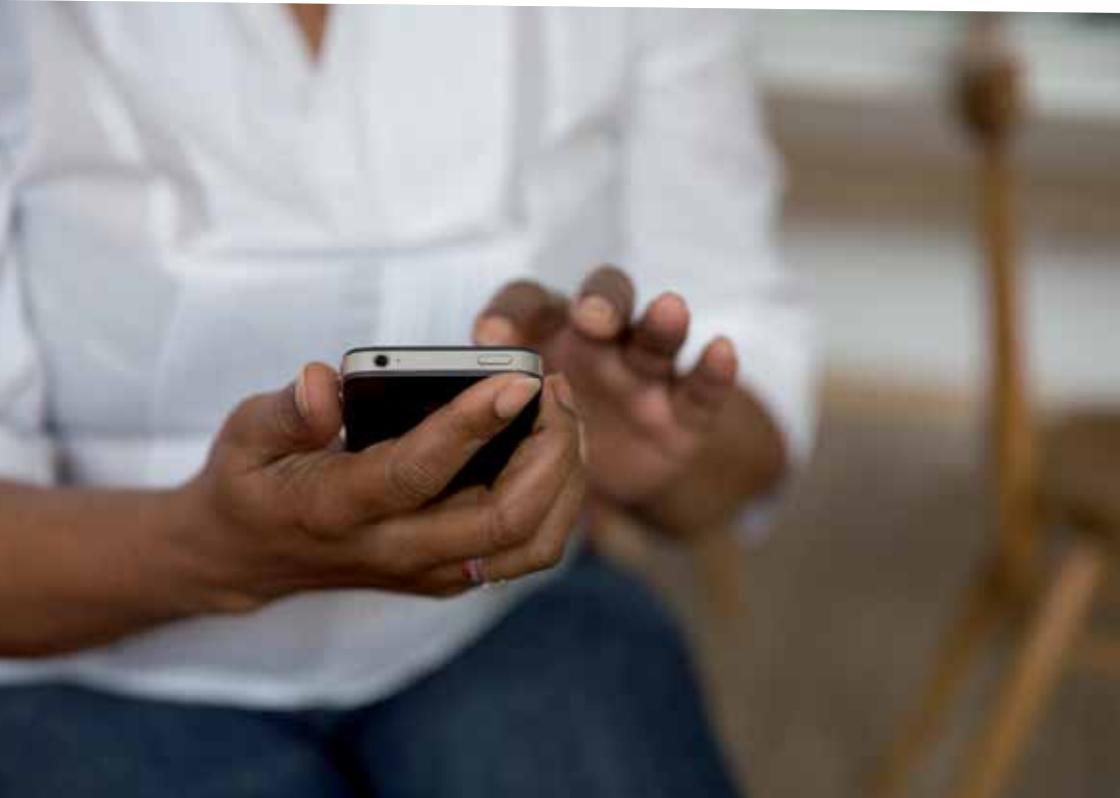
Occasionally a secondary bone cancer is found before the primary cancer is diagnosed.

If this happens your doctor may arrange for you to have tests to find out where the primary cancer is. Your doctor will be able to tell you more about these tests.

Our cancer support specialists on **0808 808 00 00** can also give you information about tests you may need to have.

Waiting for results

Waiting for test results can be a difficult time. It may take from a few days to a couple of weeks for the results of your tests to be ready. You may find it helpful to talk with your partner, family or a close friend. Your specialist nurse or one of the organisations listed on our database, can also provide support. You can also talk things over with one of our cancer support specialists on **0808 808 00 00** (see page 91).





TREATING SECONDARY BONE CANCER

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Treatment overview

Treatment for secondary bone cancer usually aims to:

- relieve any symptoms, such as bone pain, and to improve your quality of life
- treat the cancer that is affecting the bone
- reduce the risk of a bone fracture or a high calcium level in the blood (hypercalcaemia).

Treatment is normally given with the aim of controlling the cancer rather than curing it. However, many people live with secondary bone cancer for a long time.

Relieving symptoms

Radiotherapy may be used to relieve bone pain and make you feel more comfortable (see page 36). This may be given using a machine similar to an x-ray machine, as external beam radiotherapy. You may also have internal radiotherapy using a radioisotope (a radioactive liquid). This may be given by injection, as a drip into a vein, or by mouth.

Other treatments to relieve symptoms may include painkillers and other medications.

Treating the primary cancer

Treatments used to treat the primary cancer may also treat the secondary cancer and help relieve symptoms.

The type of treatment you have will depend on where your cancer started. This is because the secondary cancer cells in the bone have come from the original primary cancer, so will usually respond to the same type of treatment. You may be offered:

- hormonal therapy (see page 41)
- chemotherapy (see page 42)
- targeted therapy or immunotherapy (see page 44)
- surgery (see page 45)
- a combination of these.

Reducing the risk of fractures and hypercalcaemia

Your doctor may offer you drugs called bisphosphonates or a drug called denosumab. These are bone-strengthening drugs. They are used to reduce the risk of fractures or hypercalcaemia, and to relieve pain (see pages 49 to 53).

Some people may have an operation to strengthen or to remove and replace a weakened bone (see page 48).

How treatment is planned

In most hospitals a team of specialists will talk to you about the treatment they feel is best for your situation. This multidisciplinary team (MDT) will include:

- a surgeon (who specialises in your type of cancer)
- a medical oncologist (chemotherapy specialist)
- a clinical oncologist (radiotherapy and chemotherapy specialist)
- a nurse specialist
- radiologists who help to analyse x-rays and scans
- pathologists who advise on the type and extent of the cancer.

It may also include other healthcare professionals, such as a palliative care doctor or nurse who specialises in symptom control, dietitian, physiotherapist, occupational therapist (OT), psychologist or counsellor.

The MDT will take a number of factors into account when advising you on the best course of action, including your general health, the type and size of the tumour, and whether it has begun to spread.

Treatment choices

If two treatments are equally effective for the type and stage of cancer you have, your doctors may offer you a choice. Make sure you have enough information about the different options to make your decision.

You might want to ask your doctor for more information about each treatment and about possible side effects before you decide what is right for you. It often helps to make a list of the questions you want to ask and to take a relative or close friend with you. You may also find it helpful to take notes.

Second opinion

Your multidisciplinary team (MDT) uses national treatment guidelines to decide the most suitable treatment for you. Even so, you may want another medical opinion. If you feel it will be helpful, you can ask either your specialist or GP to refer you to another specialist for a second opinion.

Getting a second opinion may delay the start of your treatment, so you and your doctor need to be confident that it will give you useful information. If you do go for a second opinion, it may be a good idea to take a relative or friend with you. You may also find it helpful to have a list of questions ready so that you can make sure your concerns are covered during the discussion.

Giving your consent

Before you have any treatment, your doctor will explain its aims. They will usually ask you to sign a form saying that you give permission (consent) for the hospital staff to give you the treatment. No medical treatment can be given without your consent, and before you are asked to sign the form you should be given full information about:

- the type and extent of the treatment
- its advantages and disadvantages
- any significant risks or side effects
- any other treatments that may be available.

If you do not understand what you have been told, let the staff know straight away, so they can explain again. Some cancer treatments are complex, so it is not unusual to need repeated explanations. It is a good idea to have a relative or friend with you when the treatment is explained, to help you remember the discussion. You may also find it useful to write a list of questions before your appointment.

People sometimes feel that hospital staff are too busy to answer their questions, but it is important for you to know how the treatment is likely to affect you. The staff should be willing to make time for your questions.

You can always ask for more time if you feel that you cannot make a decision when your treatment is first explained to you.

You are also free to choose not to have the treatment. The staff can explain what may happen if you do not have it. It is essential to tell a doctor or the nurse in charge, so they can record your decision in your medical notes. You do not have to give a reason for not wanting treatment, but it can help to let the staff know your concerns so they can give you the best advice.

The benefits and disadvantages of treatment

Many people are frightened at the idea of having cancer treatments, particularly because of the side effects that can occur. However, these can usually be controlled with medicines. Treatment can be given for different reasons and the potential benefits will vary depending upon your individual situation.

For people with secondary cancer in the bone, treatment usually aims to control the cancer. This can lead to an improvement in symptoms and a better quality of life. However, for some people, the treatment will have no effect on the cancer, and they get the side effects with little benefit.

Making decisions about treatment in these circumstances is always difficult, and you may need to discuss in detail with your doctor whether you wish to have treatment.

If you choose not to have treatment, you will still be given supportive (palliative) care, with medicines to control any symptoms.

Radiotherapy

Radiotherapy uses high-energy rays to treat cancer. It works by destroying cancer cells in the area that is being treated.

Normal cells can also be damaged by radiotherapy. But they can usually repair themselves, while cancer cells cannot.

Radiotherapy is often used to treat secondary bone cancer. It can help relieve symptoms such as pain.

You may have:

- External beam radiotherapy. This aims high-energy x-rays at the affected bone from a radiotherapy machine.
- Radioisotope therapy (or radionuclide therapy), where you have a radioactive substance either as a capsule or as an injection into a vein.

External beam radiotherapy

You may have radiotherapy for secondary bone cancer as:

- a single treatment session
- a number of treatment sessions, which are given daily.

Your doctor will discuss your treatment with you and answer any questions you have.

You will normally have radiotherapy to the area of the bone affected by the cancer. It usually takes 7 to 10 days for radiotherapy to start reducing bone pain. It may take up to six weeks before you feel the full effect. You may notice that any pain you have becomes slightly worse before getting better.

During this time, it is important to continue taking the painkillers your doctor prescribes. As your pain improves, you may be able to reduce the amount of painkillers. But, it is important to talk to your doctor or nurse before adjusting the dose.

External radiotherapy does not make you radioactive. It is perfectly safe to be with other people after treatment, including children.

Side effects of external radiotherapy

This type of radiotherapy usually causes very few side effects. However, treatment to bones in certain areas of the body, such as the ribs or the spine, may make you feel sick for a couple of days after the treatment. Radiotherapy treatment to your pelvis may cause diarrhoea. These side effects can usually be prevented by taking anti-sickness or anti-diarrhoea medicines.

Before your treatment starts, your doctor, nurse or radiographer (who gives the radiotherapy) will discuss any likely side effects with you. They will also arrange for you to have any drugs you may need to manage these side effects.

We have a video of an oncologist explaining how external radiotherapy works and showing the machine that you might find helpful. You can watch the video at [macmillan.org.uk/radiotherapy](https://www.macmillan.org.uk/radiotherapy)

We also have a booklet called **Understanding radiotherapy** which you may find helpful (see page 90).

Stereotactic ablative radiotherapy

This type of radiotherapy is very precise. It uses many small beams of radiation to target the tumour. It is occasionally used to treat secondary bone cancer in the spine if there are only one or two areas affected.

This treatment is not widely available in the UK, and you may need to be referred to a specialist hospital if your doctor thinks it is suitable treatment for you.

If the treatment is suitable for you, your team will discuss it with you. We have more information about stereotactic radiotherapy on our website.

Radioisotope therapy

Radioisotopes are radioactive substances. These may be given as a drink, capsules, or as an injection into a vein. Cancer cells absorb radioisotopes more than normal cells and so get a higher dose of radiation. This causes the cancer cells to die.

The advantage of radioisotope treatment is that all the bones affected by cancer will be treated. So, it can be a helpful treatment if several of your bones are affected.

There are different types of radioisotopes. The type you have will depend on the type of primary cancer you have.

Types of radioisotopes

Radium-223 (Xofigo®)

You may have radium-223 to treat secondaries in the bone from prostate cancer that is no longer responding to hormonal therapy. It can help improve symptoms and may help you to live longer.

You have it as an injection through a small tube (cannula) which is put into a vein in your arm or hand. You usually have the injection every four weeks, up to six times. You will normally have the injection as an outpatient and be able to go home afterwards.

Your pain may get worse for a few days after your treatment. Your doctor can prescribe extra painkillers if you need them. The pain usually improves over the following few weeks.

Your urine and blood will be very slightly radioactive for about seven days and you will be given advice to follow to reduce any risk to others.

Strontium-89 and Samarium-153

You may occasionally have strontium-89 to treat secondaries in the bone from prostate cancer and breast cancer. You have it as an injection through a small tube (cannula) which is put into a vein in your arm or hand. You will normally have the injection as an outpatient and be able to go home afterwards.

Samarium-153 may also be used to treat secondaries in the bone.

Your doctor or specialist nurse will give you more information about these treatments if they are suitable for you.

Iodine-131

You may have iodine-131 to treat secondaries in the bone from thyroid cancer. You will be given the radioactive iodine as a capsule or occasionally as a drink.

The radioactivity in iodine-131 breaks down slowly, so you will need to stay in hospital in a single room for a few days. You can go home once the radioactivity reduces to a level that is safe for other people around you. You can read more about iodine-131 in our booklet **Understanding thyroid cancer** (see page 90).

Side effects of radioisotope treatment

Radioisotopes such as radium-223 or strontium-89 can temporarily reduce the number of normal red and white blood cells produced by the bone marrow.

If the number of your red blood cells is low (anaemia), you may feel tired and breathless. You may be given a blood transfusion if they are very low. When your number of white blood cells is low you are more prone to infection. If you develop an infection you will be given antibiotics.

Another side effect can be tumour flare which is swelling around the tumour area in the days following treatment. This can cause a temporary increase in pain and tenderness, and you may need to take painkillers for a few days.

Hormonal therapy

You may be offered hormonal therapies to treat bone secondaries from breast or prostate cancer.

Hormones help to control how cells grow and what they do in the body. However, some can also affect the growth of breast cancer or prostate cancer cells.

Hormonal therapies work by:

- lowering the levels of particular hormones in the body
- preventing hormones from being used by the cancer cells.

Hormonal therapies can slow down or stop the growth of the cancer cells in the bone. They can shrink the cancer and reduce or get rid of symptoms such as bone pain.

Different types of hormonal therapy work in slightly different ways. You may have two different types at the same time. They are given as tablets or injections.

Side effects

Hormonal therapy can cause side effects for some people, including hot flushes and sweats in both men and women. Although the effects can be mild for many people, for others they can be more difficult to cope with. It is important to discuss the possible side effects with your doctor before you start treatment.

We have more information about commonly used hormonal drugs on our website. Visit [macmillan.org.uk/information-and-support/treating/hormonal-therapies](https://www.macmillan.org.uk/information-and-support/treating/hormonal-therapies)

Chemotherapy

Chemotherapy uses anti-cancer (cytotoxic) drugs to destroy cancer cells. It works by disrupting the way cancer cells grow and divide, but it also affects normal cells.

Where the primary cancer started in the body will affect:

- whether chemotherapy is likely to help
- which chemotherapy drugs are used.

For example, if you have breast cancer that has spread to the bones, you will have chemotherapy drugs that are used to treat breast cancer.

How chemotherapy is given

You may have chemotherapy in different ways, including:

- by injection into a vein (intravenously)
- as a drip (infusion) in a vein
- by injection into muscle or under the skin
- by mouth (orally) as tablets or capsules.

You usually have chemotherapy as several sessions of treatment. Each one is usually followed by a rest period. This allows your body to recover from the side effects before the next session. The length of rest period will vary depending on which type of chemotherapy you have.

The chemotherapy session and the rest period make up a cycle of treatment. Your doctor or nurse will explain how many cycles of treatment you need and how you will have your chemotherapy.

Side effects

Chemotherapy drugs may cause unpleasant side effects, but these can usually be well controlled with medicines. Side effects will usually improve once treatment has finished. Different drugs cause different side effects and some people may have very few side effects. Some side effects can take longer to get better and, rarely, some can be permanent. You can talk to your doctor or nurse about what to expect from your treatment.

We have a booklet called **Understanding chemotherapy** which you may find helpful (see page 90).

'I was able to have radiotherapy and chemotherapy, which has stabilised the condition. I know it is incurable but I feel really well now and am enjoying life to the full.'

Hilary

Targeted therapies and immunotherapies

Targeted therapies (sometimes called biological therapies) are substances that target differences between cancer cells and normal cells. They are often used to treat kidney cancer that has spread to other parts of the body, including the bones. They are also sometimes used to treat other cancers that have spread, such as prostate, breast and lung cancer.

Targeted therapies include a range of different drugs. They can be given in different ways including:

- by mouth (orally)
- by injection under the skin (subcutaneously)
- by injection into a vein (intravenously).

Side effects vary depending on the drug used. Your hospital team can tell you more.

We have more information on commonly used targeted therapies on our website. Visit [macmillan.org.uk](https://www.macmillan.org.uk) for more information.

Surgery

Secondary bone tumours may be treated with surgery. You may have surgery:

- to strengthen a weakened bone
- to relieve pressure on nerves in the spinal cord
- occasionally to remove a secondary cancer from a bone.

Strengthening a weakened bone

Bones can sometimes be weakened by the cancer cells. If this happens, it may be possible to strengthen or repair them using surgery.

Weak thigh or arm bones

Sometimes an x-ray shows that a secondary cancer has weakened a long bone such as the thigh bone (femur) or upper arm bone (humerus). If there is a risk of the bone breaking, your surgeon may suggest an operation to help strengthen it. Whether an operation is suitable for you will depend on:

- which bone is affected
- which part of the bone the cancer is in
- other treatment you are having for the cancer
- your general health.

The operation is usually done under a general anaesthetic. The surgeon puts a metal rod down the middle of the weakened bone or fixes a metal plate on the outside of the bone. This secures and strengthens the bone, holding it firmly so it will not break. The rods or plates stay in permanently.

A type of plastic bone cement is sometimes used to strengthen large areas of bone damage.

How long you have to stay in hospital afterwards depends on what operation you have and how well you are. If you have surgery to the upper limbs, you usually stay in hospital for up to 3 days. For surgery to the lower limbs, you may need to stay in hospital for between 5 to 7 days. You will see a physiotherapist who will give you exercises to do. Radiotherapy is often given after an operation to help strengthen a bone.

Sometimes the secondary bone cancer causes the bone to crack or break (fracture) before a strengthening operation can be done. If this happens, it may still be possible to mend the bone. Your doctor or specialist nurse will discuss this with you.

Weak hip or shoulder joints

If secondary cancer has caused a lot of damage to your hip or shoulder joint, you may need an operation to replace the joint. You will need to stay in hospital for between 3 to 7 days and will have physiotherapy afterwards.

You may also have radiotherapy before or after these operations (or both) to try to destroy any cancer cells left in the area and help repair the bone.

Percutaneous cementoplasty

You may have this procedure to strengthen a weakened bone and relieve bone pain. It involves injecting a special type of cement into the bone. It can be used to treat bones in the arm or leg. It can also sometimes be used when a tumour is affecting the spine. In this case, the treatment is called vertebroplasty.

You will have a general anaesthetic or a sedative to make you feel drowsy. Your doctor will put a needle through your skin. Using x-rays or CT scans to guide them, they will inject the cement into the weakened bone.

Your doctor can talk to you about whether percutaneous cementoplasty would be suitable for you.

Balloon kyphoplasty

Surgeons can sometimes use this procedure to help strengthen and restore the height of a collapsed bone in the spine.

You will have a general anaesthetic or a sedative to make you feel drowsy. A doctor makes a small cut in your back. They then use a special instrument to insert a small balloon into the affected bone. The balloon is inflated until the height of the collapsed bone is back to normal. The balloon is then let down and removed from the bone and the space left by the balloon is filled with cement.

Balloon kyphoplasty is a specialised technique that is not suitable for everyone. There are other techniques that are similar to balloon kyphoplasty. Your doctor will be able to tell you more about these techniques and will let you know if they are suitable for you.

Relieving pressure on the spinal cord

Surgery is only suitable to treat a small number of people with spinal cord compression (see page 58). It depends on many factors, including the type of cancer you have, where it is and how unstable your spine is.

The aim of surgery is to remove as much of the tumour as possible, and relieve pressure on the spinal cord.

It may also involve stabilising the spine further by using metal rods. Your doctor or nurse will explain the operation in more detail if surgery is appropriate for you.

Removing the secondary cancer

Occasionally, if the cancer only affects one bone and has not spread to other parts of your body, it may be possible to remove the affected area. The remaining bone may then be strengthened with a metal implant. Sometimes, the bone may be replaced with a false part (prosthesis). The operation is usually done under a general anaesthetic.

If surgery is a possible option for you, your doctor will explain the operation to you and answer any questions you have.

Bisphosphonates

Your specialist team may recommend you have bisphosphonates.

Bisphosphonates are drugs that help to:

- strengthen bones
- relieve bone pain
- reduce the risk of a bone breaking (fracture)
- treat high levels of calcium in the blood (hypercalcaemia).

Cancer cells that have spread to the bone produce chemicals that change the way bone cells behave. The cells that destroy old bone (osteoclasts) become overactive, so more bone is broken down. This commonly causes small holes in the bone.

Bisphosphonates work by reducing the activity of the osteoclasts.

There are different types of bisphosphonates. The one you have will depend on your general health and the type of cancer you have. Commonly used bisphosphonates are:

- zoledronic acid
- disodium pamidronate
- sodium clodronate
- ibandronic acid.

You may have bisphosphonates as a drip (infusion) into a vein (intravenously). Usually, you will have this treatment as an outpatient. Treatment is often given every 3 to 4 weeks and usually takes 15 to 60 minutes.

Or you may take your bisphosphonates as tablets or capsules. Your doctor, nurse or pharmacist will explain how you should take your tablets. It is important that you take the bisphosphonates exactly as you have been directed.

Possible side effects of bisphosphonates

Side effects of bisphosphonates may include:

- pains in the muscles and joints
- low levels of calcium in the blood – your doctor will probably advise you to take calcium and vitamin D to prevent this
- flu-like symptoms, which usually settle after the first dose.

Oral bisphosphonates (taken by mouth) may also cause:

- indigestion
- a sore throat or inflamed gullet.

A very rare side effect of bisphosphonates is osteonecrosis of the jaw. This is when healthy bone tissue in the jaw becomes damaged and dies. It happens more commonly in people who have teeth removed or other dental procedures while taking bisphosphonates. It is more common when bisphosphonates are given by injection rather than as tablets or capsules. It can result in poor healing of the gums or loosening of the teeth.

You should always see your dentist before taking bisphosphonates. It is important to let them know that you are taking bisphosphonates. This is because you should not have any dental extractions (removal of a tooth or root) or implants during treatment.

If you need to have a tooth or root taken out, you should let your doctor know before you have it done. Your doctor may temporarily stop your bisphosphonates while you have the extraction and until the tooth socket has fully healed.

It is still safe to have tooth filling, scaling, polishing or gum treatments.

We have information about the different types of bisphosphonates on our website (see page 90).

Denosumab (Xgeva®, Prolia®)

Denosumab may be used to lower the risk of fractures caused by secondary bone cancers. It is also known as Xgeva® or Prolia®. It belongs to a group of cancer drugs called monoclonal antibodies. Monoclonal antibodies are a type of targeted therapy and immunotherapy. They work by 'targeting' specific proteins on the surface of cells. Denosumab controls the activity of osteoclasts (see page 12) and reduces bone breakdown.

The National Institute for Health and Care Excellence (NICE) has approved Xgeva use for the treatment of bone secondaries from breast cancer and other solid tumours except prostate cancer. It is given as an injection just under the skin (subcutaneously) every 4 weeks.

Side effects of Denosumab

Denosumab generally has few side effects. Side effects you may have include:

- low levels of calcium in the blood – your doctor will probably advise you to take calcium and vitamin D supplements to prevent this
- jaw problems (osteonecrosis)
- pains in the muscles and joints
- feeling short of breath
- diarrhoea
- excessive sweating.

Your doctor can tell you more about denosumab if it is a suitable treatment for you.

Other treatments

Other treatments that may occasionally be used for secondary bone cancer include:

- high intensity focused ultrasound, which uses high-frequency focused sound waves to heat and destroy cancer cells
- radiofrequency ablation, which uses heat to destroy cancer cells
- cryotherapy, which uses very cold temperatures to destroy cancer cells.

These treatments are not widely available and you may have to travel to another hospital to have them.

Your doctor will tell you more about these treatments if they are suitable for you.

Managing the symptoms of secondary bone cancer

Managing the symptoms of secondary bone cancer is an important part of your treatment. Symptoms of secondary cancer in the bone include:

- pain
- problems with daily activities
- spinal cord compression (pressure on the nerves in the spine)
- raised blood calcium level (hypercalcaemia – see page 59)
- effects on the bone marrow.

Pain

Pain is the most common symptom of secondary bone cancer. There are different types of pain and they may need different treatments. There are many painkillers available to treat different types and levels of pain. They are usually very effective. Painkillers may be given alone or alongside other treatments.

Your doctor or specialist nurse will discuss your pain with you. It is important to let them know if it is not controlled or if it is happening with everyday tasks such as walking or lifting things.

You may need to try a few different painkillers before you find one that works well for you. Sometimes, you may need to take a combination of painkillers to control the pain well.

We have more information about the pain caused by cancer or its treatment in our booklet **Managing cancer pain** (see page 90).

You may have other treatments to help relieve pain. These include:

- radiotherapy
- bisphosphonates
- surgery.

If your pain is stopping you from sleeping, your doctor may prescribe a mild sleeping tablet for you.

Other ways of relaxing and helping to reduce your pain include:

- downloading a relaxation app or listening to relaxation CDs
- a long soak in a warm bath
- having a massage to an area of the body that is not painful, such as the head, hands or feet.

You can ask your doctor to refer you to a palliative care nurse. They are specialists in advising on pain and symptom control, and giving emotional support. They can visit you at home.

'I have some pain but it is very manageable.'

Joanne

Walking and moving

Some people with secondary cancer in the bone may have difficulty with walking or moving around. This does not affect everyone, but may be more likely if you have pain when you move. If you have pain when you move, your doctor will want to check that the bones have not become weakened by the cancer.

If the bone does not need an operation, a physiotherapist can assess you to see if a walking stick or zimmer frame may help. They can also see what can help you move around easier at home.

If the secondary bone cancer is affecting your arms, sometimes day to day tasks can be painful or difficult. For example eating, shaving or drying your hair. If this is the case, your doctor will assess you to check whether any treatment with radiotherapy or surgery may help.

An occupational therapist can look at what may make things easier for you. They may suggest different ways to do things, or equipment that can help you to continue doing the things you want to do.

Spinal cord compression

A common place for a secondary bone cancer is the spine. This often causes back or neck pain. If this affects you, your doctors will make sure you have painkillers to relieve any discomfort.

Less often, the cancer can cause pressure on the nerves in the spine, known as spinal cord compression. Symptoms of spinal cord compression include:

- back or neck pain, which may be mild at first but becomes severe
- weakness in the arms or legs
- numbness or strange sensations in your legs, hands or around your bottom and genitals
- problems controlling or passing urine
- constipation or problems controlling your bowels.

If you develop any of these symptoms, it is very important to let your doctor or specialist nurse know straight away. If you have spinal cord compression, you will need treatment as soon as possible. The treatment will aim to relieve the pressure and prevent permanent damage to the nerves, which could cause paralysis.

Your doctor will give you high doses of steroids to reduce the swelling and pressure around the spine. This is often followed by radiotherapy to shrink the cancer and reduce the pressure. Some people may have surgery to relieve pain and strengthen the spine. They will gradually reduce the dose of steroids after radiotherapy or surgery.

Raised blood calcium level (hypercalcaemia)

Secondary cancer cells in the bone can cause calcium to be released from the bones into the blood. High levels of calcium in the blood (hypercalcaemia) can make you:

- sick
- thirsty
- drowsy
- confused and unwell
- constipated.

You may need to spend a few days in hospital having treatment to reduce your calcium levels.

Your doctor or nurse may ask you to drink lots of liquids. You are also likely to have a drip (intravenous infusion) of fluids into a vein in your arm. This will increase the amount of fluid in your blood, and help your kidneys to get rid of the calcium in your urine.

Your doctor may give you bisphosphonates through a drip to reduce the level of calcium in the bloodstream. You can have this treatment more than once if the calcium levels rise again. You should feel much better within a couple of days.

Effects on the bone marrow

The bone marrow is the spongy material in the centre of some of our bones (see page 12). It produces our blood cells. If you have secondary cancer in the bone, this may affect how the bone marrow works and may lower the number of cells in your blood. We have more information about blood and platelet transfusions, and avoiding infection on our website. Visit [macmillan.org.uk](https://www.macmillan.org.uk) for more information.

If you have a low level of red blood cells (anaemia), you may be breathless and get tired more easily. Your doctor may suggest that you have a blood transfusion. You can have further blood transfusions if it is helpful.

Low levels of white blood cells may make you more likely to get an infection. Your doctor can prescribe antibiotics if you do.

A low platelet count will increase your risk of bruising and bleeding. Occasionally, if your platelet count is very low, you may need a platelet transfusion.

Your doctor may suggest other types of treatment that target the cancer to help reduce the effects on the bone marrow. This will depend on which type of primary cancer you have.

Research – clinical trials

Clinical trials are medical research studies involving people. Doctors may use cancer clinical trials to:

- test new treatments to see if they work better than current treatments
- find which treatments have fewer side effects
- find new ways to combine treatments to see if they work better
- test new cancer drugs to find out more about them and their side effects
- improve the way treatments are given to try to reduce side effects.

Results from clinical trials can improve cancer treatments and help people live longer. Trials can also look at improving things like diagnosis and symptom management.

Taking part in clinical trial

Your cancer doctor or specialist nurse may talk to you about taking part in a clinical trial. Or you could ask them if there are any trials suitable for you.

Usually, cancer clinical trials happen in several hospitals around the country. You may have to travel to take part in a trial.

A research nurse or doctor will give you information about the trial. It is important to understand what is involved before you agree (consent) to take part. You can ask the research nurse or doctor any questions you have.

They will also explain the possible benefits and any possible risks of the trial. Clinical trials are designed to be as safe as possible. The researchers will monitor you closely during and after the trial.

If you decide not to take part in a trial, your cancer doctor and specialist nurse will respect your decision. You do not have to give a reason for not taking part. Your decision will not change your care. Your cancer doctor will give you the standard treatment for the type and stage of cancer you have.

We have more information in our booklet **Understanding cancer research trials (clinical trials)** – see page 90.

Blood and tumour samples

Blood and tumour samples may be taken to help make the right diagnosis. You may be asked for your permission to use some of your samples for research into cancer. If you take part in a trial you may also give other samples, which may be frozen and stored for future use when new research techniques become available. Your name will be removed from the samples so you cannot be identified.

The research may be carried out at the hospital where you are treated, or at another one. This type of research takes a long time, and results may not be available for many years. The samples will be used to increase knowledge about the causes of cancer and its treatment, which will hopefully improve the outlook for future patients.

Current research

There is more information about current clinical trial databases on our website. Visit [macmillan.org.uk/clinicaltrials](https://www.macmillan.org.uk/clinicaltrials)



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After treatment

Your specialist team or GP will organise regular check-ups for you. You may also have some tests.

Your specialist team will continue to monitor your symptoms and may give you further treatments if needed.

If you have any problems between appointments, contact your doctor or specialist nurse as soon as possible.

'I take tamoxifen and I have 3-monthly scans to make sure things are behaving. I had an anxious couple of weeks waiting for results but I'm pleased to say it came back stable. I've struggled with fatigue lately but it I'm dealing with it.'

Emma

Who can help?

Many people are available to help you and your family.

District nurses work closely with GPs and make regular visits to patients and their families at home if needed.

The hospital social worker can give you information about social services and benefits you may be able to claim, such as meals on wheels, a home helper or hospital fares. The social worker may also be able to arrange childcare for you during and after treatment.

In many areas of the country, there are also specialist nurses called palliative care nurses. They are experienced in assessing and treating symptoms of advanced cancer. Palliative care nurses are sometimes known as Macmillan nurses. However, many Macmillan professionals are nurses who have specialist knowledge in a particular type of cancer. You may meet them when you are at a clinic or in hospital.

Marie Curie nurses help care for people approaching the end of their lives in their own homes. Your GP or hospital specialist nurse can usually arrange a visit by a palliative care or Marie Curie nurse.

There's also specialist help available to help you cope with the emotional impact of cancer and its treatment. You can ask your hospital doctor or GP to refer you to a doctor or counsellor who specialises in supporting people with cancer and their families.

Our cancer support specialists on **0808 808 00 00** can tell you more about counselling and can let you know about services in your area.



YOUR FEELINGS AND RELATIONSHIPS

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Your feelings

It is common to have many different emotions when you are told you have cancer. These can be difficult to cope with. We talk about some common feelings here. Partners, family and friends may also have some of the same feelings.

There are lots of different reactions to cancer. You might not have any of the emotions we talk about here. There is no right or wrong way to feel. You will cope with things in your own way.

Talking to family, friends or other people affected by cancer, may help. Or you may get support from your healthcare team.

Shock and denial

You may find it hard to believe it when your doctor tells you that you have cancer. It is common to feel shocked and numb. You may not be able to take in much information and find that you keep asking the same questions again and again. At first, you might find it hard to talk to family and friends about the cancer. This usually gets easier as the shock wears off and it becomes more real to you. You may find you cannot think or talk about anything but the cancer. This is because your mind is trying to process what you're going through.

You may find our booklet **Talking about cancer** helpful (see page 90).

Fear and anxiety

You may be anxious or frightened about whether treatments will work and what will happen in the future. This can be one of the hardest things to cope with. It can help to try to focus on things you can control. You may want to find out more about the cancer, your treatment options, and how to manage any side effects. It can also help to talk about your feelings. Try to keep doing the things that are important to you and that you enjoy.

Sadness and depression

You may feel sad if you have to change your plans because of the cancer, or if your future feels uncertain. Feeling sad is a natural reaction to changes or loss. This feeling may come and go during and after your treatment. For most people, these periods of sadness get better. But for some people, the sadness may continue or get worse. If you think the sadness may be turning into depression, there are things you can do to help.

Avoidance

You may cope by trying not to find out much about the cancer. Or by not talking about it. If you feel like this, tell people that you do not want to talk about it right now. You can also tell your cancer doctor if there are things you do not want to know or talk about yet.

Sometimes, it may be hard to accept that you have cancer. This can stop you making decisions about treatment. If this happens, it is very important to get help from your healthcare team.

You may feel that your family or friends are avoiding you or avoiding talking about the cancer. This is usually because they are also finding it difficult to cope. They may need support too. Try to tell them how this makes you feel. It may help you, and your family and friends, to talk openly about how you are feeling.

Anger

You may feel angry about your diagnosis. You may also resent other people for being well. These are normal reactions. They are more likely when you feel frightened, stressed or unwell. You may get angry with your family, friends or partner. Tell them you are angry at your illness and not at them. Finding ways to relax can help with anger. This can include talking about or writing down how you feel, doing gentle exercise, having relaxation therapy or meditating.

Guilt and blame

You may feel guilty or blame yourself for the cancer. You may want to find reasons for why it has happened to you. Most of the time, it is impossible to know exactly what causes a cancer. Over time, a combination of different risk factors may cause a cancer. Doctors do not fully understand all these factors yet. Try to focus on looking after yourself and getting the help and support you need.

Feeling alone

You may feel alone or isolated. This could be because you do not think you have support. Family and friends may live far away, be busy, or feel uncomfortable talking about the cancer. Try to tell your family and friends how you feel. This can help them find ways to support you.

You may have times when you want to be alone for a while. But if you find you are avoiding people a lot of the time, try to talk to your doctor or nurse.

If you need more support, you can call the Macmillan Support Line on **0808 808 00 00** and talk to one of our cancer support specialists. Our website can help you find local support groups. Visit [macmillan.org.uk/supportgroups](https://www.macmillan.org.uk/supportgroups) You can also talk to other people affected by cancer on our Online Community. Visit [macmillan.org.uk/community](https://www.macmillan.org.uk/community)

Relationships

The experience of cancer may have improved your relationships with people close to you. The support of family and friends may have helped you cope. But cancer is stressful, and this can have an effect on relationships. Any problems usually improve over time, especially if you can talk openly about them.

Your partner

Some couples become closer through a cancer experience. However, cancer can put a lot of strain on a relationship. Problems sometimes develop, even between couples who've been together for a long time. If a relationship was already difficult, the stress of a major illness may make things worse. Even couples that are close may not always know how their partner is feeling. Talking openly about your feelings and listening to each other can help you understand each other.

Our booklets **Cancer, you and your partner** and **Sexuality and cancer** have more information that may help (see page 90).

Family and friends

Your family and friends may not always understand if you aren't feeling positive about getting on with things, and may not know how big an effect treatment is having on your life. Talking about how you feel will help them give you the support you need.

Our booklet **Talking about your cancer** has more useful tips (see page 90).

'If you need support, let your loved ones know. It's nothing to be ashamed of.'

Joolz

Talking to children

Deciding what to tell children about cancer is difficult. It can be hard to know what to tell them, and you may be worried about upsetting them. Children do not always show their feelings, but their behaviour may change at home or at school. Talking to children about the cancer can:

- help them understand what is going on
- help them feel supported
- prepare them for any changes.

It may also help with some of your own anxiety too. For example, not telling them about hospital appointments may cause extra stress.

How much you tell children will depend on their age and how mature they are. It may be best to start by giving them small amounts of information, and then tell them more when they are ready. Teenagers usually understand what cancer is. Some will want to know more.

Whether they are teenagers or young children, talking about the cancer helps them cope.

Teenagers

It can help to encourage teenagers to ask questions, ask them their opinion and try to give them time to think about what is happening. They may have to, or want to, take on more responsibilities to help – perhaps cooking meals or looking after younger children. This can be hard at a time when they may want more freedom and independence.

Sometimes teenagers may find it hard to talk about a cancer diagnosis. You can encourage them to talk to someone they trust, who can support and listen to them. This might be a grandparent, family friend, teacher or counsellor. They may also find support online. The website riprap.org.uk offers information and support for teenagers who have a parent with cancer.

We have more information about talking to children and teenagers when an adult has cancer (see page 90). We also have a video on our website about talking to children.

'Telling the kids was quite difficult with their different ages, but it has been okay. My eldest has been supportive and understanding. She has taken it all in her stride. My second eldest has had experience of relatives and people with cancer and did not cope so well.'

Emma

What you can do

One of the hardest things to cope with can be the feeling that the cancer and its treatment have taken over your life. This is a common feeling, but there are lots of things you can do.

There may be days when you feel too tired to even think about what could help. You'll have good and bad days, but if you are overwhelmed by these feelings, let your doctor or nurse know. It may be that you have depression, and this is treatable so they should be able to help.

Finding ways to cope

You may find it helps to try to carry on with life as normally as possible, by staying in contact with friends and keeping up your usual activities. Or you may want to decide on new priorities in your life. This could mean spending more time with family, going on the holiday you've dreamed about or taking up a new hobby. Just thinking about these things and making plans can help you realise that you still have choices.

Some people want to improve their general health by eating a more healthy diet, by getting fitter or by finding a relaxing complementary therapy.

Understanding about the cancer and its treatment helps many people cope. It means they can discuss plans for treatment, tests and check-ups with their doctors and nurses. Being involved in these choices can help give you back control of your life.

If you are a relative or friend

If you know someone with cancer, you might find it hard to talk about the cancer or your feelings. You might think it is best to pretend everything is fine. You might not want to worry them. Or you might feel you are letting them down if you admit you are worried or scared.

But not talking to the person with cancer about how you feel may make them feel alone.

You can support the person with cancer by listening and talking with them. Do not feel you have to talk about the cancer. Often it is enough just to listen and let the person with cancer talk when they are ready.

You may find some of the courses on our Learn Zone website helpful. There are courses to help with listening and talking. Visit [macmillan.org.uk/learnzone](https://www.macmillan.org.uk/learnzone) to find out more.

We have more information about talking to someone with cancer. You can order our booklet, **Talking with someone who has cancer** (see page 90).

If you are looking after a family member or friend with cancer, you may be a carer. We have more information and practical tips for carers. You may find our booklet **Looking after someone with cancer** useful (see page 90).



WORK AND FINANCIAL SUPPORT

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Work

You may not know how cancer will affect your work, now or in the future.

It is a good idea to talk to your manager early on. If your workplace has a human resources (HR) or personnel department, contact them as soon as you can. If they know how the cancer or treatment may affect your ability to work, they can support you better.

Some people stop working during cancer treatment and for a while after, until they feel ready to go back. Others carry on working, perhaps with reduced hours or other changes to their job.

Some people may decide not to go back to work. Or they may choose to do something different. Others may not be able to go back to work because of the effects of cancer on their health. Going back to work may depend on the type of work you do or how much your income is affected.

It is important not to take on too much, too soon. Your cancer doctor, GP or specialist nurse can help you decide when and if you should go back to work.

Our booklets **Work and cancer**, **Working while caring for someone with cancer** and **Self-employment and cancer** have more information that may be helpful (see page 90). There is also lots more information at [macmillan.org.uk/work](https://www.macmillan.org.uk/work)

Employment rights

If you have, or have ever had cancer, the law considers you to be disabled. This means you cannot be treated differently (less favourably) than other people at work because of cancer. If you are treated less favourably because of cancer, this is discrimination.

The law also says your employer has to make reasonable adjustments (changes) to your workplace and their work practices.

If you live in England, Scotland or Wales, you are protected by the Equality Act 2010. If you live in Northern Ireland, you are protected by the Disability Discrimination Act 1995.

Our booklet **Your rights at work when you are affected by cancer** has more information (see page 90).

Financial help and benefits

When you are affected by cancer, you might need help with extra costs. Or you might need financial support if you have to stop working

Statutory Sick Pay

If you work for an employer and take time off sick, you may be able to get Statutory Sick Pay. Your employer will pay this for up to 28 weeks.

Benefits

Benefits are payments from the government to people who need financial help. You can find out more about benefits and apply for them online. Go to gov.uk if you live in England, Wales and Scotland or nidirect.gov.uk if you live in Northern Ireland.

Here are some benefits that you might be able to get if you are affected by cancer.

Employment and Support Allowance (ESA)

This benefit is for people under State Pension age who cannot work because of illness or disability. There are different types of ESA:

- Contribution-based ESA may be available if you have paid enough National Insurance.
- Income-related ESA may be available if your income and savings are low, or if you cannot get contribution-based ESA. Income-related ESA is gradually being replaced by a new benefit called Universal Credit.

Personal Independence Payment

This benefit is for people aged between 16 and 64 who have problems moving around and looking after themselves. You must have had these difficulties for at least 3 months and expect them to last for at least 9 months.

Attendance Allowance

This benefit is for people aged 65 or over who have problems looking after themselves because of an illness or disability. This could mean getting out of bed, having a bath or getting dressed. You must have had these problems for at least 6 months.

Special rules

If you are terminally ill, and your doctor thinks you may be expected to live for less than 6 months, you can apply for some benefits using a fast-track process called special rules. Your claim will be dealt with quickly and you will get the benefit you applied for at the highest rate. It does not matter if you live longer than 6 months. Your doctor or specialist nurse will need to fill out a form for you.

Help for carers

Carer's Allowance is a weekly benefit that helps people who look after someone with a lot of care needs. If you do not qualify for it, you can apply for Carer's Credit.

Carer's Credit helps prevent gaps in your National Insurance record if you have to stop working while you are caring for someone else. You do not get money, but it protects your right to a State Pension later in life.

Macmillan Grants

Macmillan Grants are small, mostly 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, help paying heating bills or even a relaxing holiday, you may be able to get a Macmillan Grant.

How much you get will depend on your situation and needs. The average grant is around £380, but this may change. A grant from Macmillan would not normally affect the benefits you are entitled to. It is an extra bit of help, not a replacement for other support.

Insurance

If you have, or have had, cancer, you may find it hard to get certain types of insurance. This includes life and travel insurance. A cancer diagnosis might also mean that you can get a payout from an insurance scheme that you already have.

If you are looking into buying insurance or making a claim, one of our financial advisers can help. Call **0808 808 00 00**.

We have more information in our booklets **Insurance** and **Travel and cancer** (see page 90). Our Online Community forum Travel insurance may also be helpful. Visit **macmillan.org.uk/travelinsurancegroup**

More information

The benefits system and other types of financial support can be hard to understand. Macmillan has experienced welfare rights advisers and financial guides. You can speak to one by calling the Macmillan Support Line on **0808 808 00 00**.

You can also get information about benefits and other types of financial help from Citizens Advice (see page 100).

Our booklet **Help with the cost of cancer** has more information (see page 90).



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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](https://www.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](https://www.be.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](https://www.be.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're 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'd 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's 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](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)

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.

Book reviews

Our volunteers review many books about cancer. These include people's stories of living with cancer, and books for children. Visit [publications.macmillan.org.uk](https://www.macmillan.org.uk/publications) and search 'book reviews'.

'Everyone is so supportive on the Online Community, they know exactly what you're going through. It can be fun too. It's not all just chats about cancer.'

Mal

Help with money worries

Having cancer can bring extra costs such as hospital parking, travel fares and higher heating bills. If you've 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're 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).

Macmillan Organiser

This includes a records book to write down information such as appointments, medications and contact details. You can also download the app on IOS or Android.

Other useful organisations

There are lots of other organisations that can give you information or support.

Secondary cancer in the bone support organisations

Breast Cancer Care

Helpline 0808 800 6000

(Mon to Fri, 9am to 5pm,
late opening Wednesday,
5pm to 7pm,
Sat, 10am to 1pm)

Textphone 0808 800 6001

Email info@breastcancercare.org.uk

www.breastcancercare.org.uk

Provides information, practical assistance and emotional support for anyone affected by breast cancer. Specialist breast care nurses run the helpline. Also offers a peer support service where anyone affected by breast cancer can be put in touch with a trained supporter who has had personal experience of breast cancer.

Butterfly Thyroid Cancer Trust

Tel 0120 754 5469

(Mon to Fri, 10am to 4pm)

Email enquiries@butterfly.org.uk

www.butterfly.org.uk

Offers information, support and encouragement for people with thyroid cancer. You can talk to others with thyroid cancer through their helpline, by email and telephone, or by arranging for a buddy to help you through the treatment process.

Prostate Cancer UK

Helpline 0800 074 8383

(Mon to Fri, 9am to 6pm,
Wed, 10am to 8pm)

Email info@prostatecanceruk.org

www.prostatecanceruk.org

Offers information and support to anyone with concerns about prostate cancer. Has a helpline and leaflets to download or order and funds research into prostate cancer. Has a website with helpful information.

Roy Castle Lung Cancer Foundation

Tel 0333 323 7200

www.roycastle.org

Email info@roycastle.org

Works towards defeating lung cancer through research, campaigning and education. Aims to provide practical and emotional support for patients and all those affected by lung cancer and smoking. It also helps to enable children and young people to make informed decisions about smoking and the tobacco industry.

General cancer support organisations

Cancer Black Care

Tel 020 8961 4151

Email

info@cancerblackcare.org.uk

www.cancerblackcare.org.uk

Offers UK-wide information and support for people with cancer, as well as their friends, carers and families, with a focus on those from BME communities.

**Cancer Focus
Northern Ireland**

Helpline 0800 783 3339

(Mon to Fri, 9am to 1pm)

Email

nurseline@cancerfocusni.org

www.cancerfocusni.org

Offers a variety of services to people affected by cancer in Northern Ireland, including a free helpline, counselling and links to local support groups.

Cancer Support Scotland

Tel 0800 652 4531

(Mon to Fri, 9am to 5pm)

Email

info@cancersupportscotland.org

www.cancersupportscotland.org

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

Maggie's Centres

Tel 0300 123 1801

Email

enquiries@maggiescentres.org

www.maggiescentres.org

Has a network of centres in various 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.

Tenovus

Helpline 0808 808 1010

(Daily, 8am to 8pm)

Email

info@tenovuscancercare.org.uk

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

General health information

Health and Social Care in Northern Ireland

www.hscni.net

Provides information about health and social care services in Northern Ireland.

NHS.UK

www.nhs.uk

The UK's biggest health information website.
Has service information for England.

NHS Direct Wales

www.nhsdirect.wales.nhs.uk

NHS health information site for Wales.

NHS Inform

Helpline 0800 22 44 88

(Daily, 8am to 10pm)

www.nhsinform.scot

NHS health information site for Scotland.

Counselling

British Association for Counselling and Psychotherapy (BACP)

Tel 01455 883 300

Email bacp@bacp.co.uk

Promotes awareness of counselling and signposts people to appropriate services across the UK. You can search for a qualified counsellor at itsgoodtotalk.org.uk

Emotional and mental health support

Mind

Helpline 0300 123 3393

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.

Samaritans

Helpline 116 123

Email jo@samaritans.org

www.samaritans.org

Samaritans branches are located across England, Ireland, Scotland and Wales. Provides confidential and non-judgemental emotional support, 24 hours a day, 365 days a year, for people experiencing feelings of distress or despair.

Support for older people

Age UK

Helpline 0800 055 6112

(Daily, 8am to 7pm)

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.

Support for carers

Carer's Allowance Unit

Tel 0345 608 4321

Textphone 0345 604 5312

(Mon to Thu, 8.30am to 5pm,
and Fri, 8.30am to 4.30pm)

www.gov.uk/browse/benefits

Manages state benefits in England, Scotland and Wales. You can apply for benefits and find information online or through its helplines.

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 Wed, 10am to 4pm)

Helpline (Northern Ireland)

028 9043 9843

Email advice@carersuk.org

www.carersuk.org

Offers information and support to carers across the UK.

Has an online forum and can put people in contact with support groups for carers in their area.

Financial or legal advice and information

Benefit Enquiry Line

Northern Ireland

Helpline 0800 220 674

(Mon, Tue, Wed and

Fri, 9am to 5pm,

Thu, 10am to 5pm)

Textphone 028 9031 1092

[www.nidirect.gov.uk/](http://www.nidirect.gov.uk/money-tax-and-benefits)

[money-tax-and-benefits](http://www.nidirect.gov.uk/money-tax-and-benefits)

Provides information and advice about disability benefits and carers' benefits in Northern Ireland.

Citizens Advice

Provides advice on a variety of issues including financial, legal, housing and employment issues. Use their online webchat or find details for your local office in the phone book or by contacting:

England

Helpline 03444 111 444
www.citizensadvice.org.uk

Scotland

Helpline 0808 800 9060
www.citizensadvice.org.uk/scotland

Wales

Helpline 03444 77 2020
www.citizensadvice.org.uk/wales

Northern Ireland

Helpline 0800 028 1181
www.citizensadvice.co.uk

GOV.UK

www.gov.uk

Has information about social security benefits and public services in England, Scotland and Wales.

Help with sexual difficulties

College of Sexual and Relationship Therapists

Tel 0208 543 2707

www.cosrt.org.uk

Email info@cosrt.org.uk

A national specialist charity for sex and relationship therapy. Provides information about sexual and relationship issues.

LGBT-specific support

LGBT Foundation

Tel 0345 330 3030

(Mon to Fri, 10am to 10pm, and Sat 10am to 6pm)

Email helpline@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.

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 our Chief Medical Editor, Dr Tim Iveson, Macmillan Consultant Medical Oncologist.

With thanks to: Professor Janet E Brown, Professor of Medical Oncology, Head of the Academic Unit of Clinical Oncology; Mr Jonathan J Gregory, Consultant Orthopaedic Oncological Surgeon; Dr Barry Oliver, Consultant in Radiology; Pauline McIlroy, Breast cancer Clinical Nurse Specialist; Lucy Powell, Uro-oncology Clinical Nurse Specialist.

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

We have listed a sample of the sources used in the booklet below. If you would like further information about the sources we use, please contact us at **cancerinformationteam@macmillan.org.uk**

British Orthopaedic Oncology Society and British Orthopaedic Association. 2015. Metastatic Bone Disease: A guide to good practice.

Coleman R et al. Bone health in cancer patients: ESMO Clinical Practice Guidelines. Annals of Oncology. 2014.

Kane et al 2015. Cancer Induced bone pain. British Medical Journal. Vol. 350.

Royal College of Radiologists: Radiotherapy Dose fractionation, Second Edition. 2016.

Can you do something to help?

We hope this booklet has been useful to you. It's just one of our many publications that are available free to anyone affected by cancer. They're 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're there 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.



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

This booklet is about secondary cancer in the bone. This is cancer that has spread to the bone from a cancer elsewhere in the body. It may also be called secondary bone cancer or metastatic cancer in the bone. There is also information for family members and friends.

The booklet explains the signs and symptoms of secondary cancer in the bone, and how it is diagnosed and treated. It also has information about emotional, practical and financial issues.

We're here to help everyone with cancer live life as fully as they can, providing physical, financial and emotional support. So whatever cancer throws your way, we're right there with you. For information, support or just someone to talk to, call **0808 808 00 00** (7 days a week, 8am to 8pm) 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.

**MACMILLAN
CANCER SUPPORT**
RIGHT THERE WITH YOU

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Surname _____

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Postcode _____

Phone _____

Email _____

Please accept my gift of £ _____

(Please delete as appropriate)

I enclose a cheque / postal order /
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Macmillan Cancer Support

OR debit my:

Visa / MasterCard / CAF Charity
Card / Switch / Maestro

Card number

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Security number

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Signature _____

Date / / _____

Don't 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'd 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