

Treating Bone Cancer - A Quick Guide



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This is a brief summary of the information on 'Treating bone cancer' from CancerHelp UK. You will find more detailed information on the website.

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The stages of bone cancer

The stage of a cancer is important when deciding on treatment. The most commonly used staging system for bone cancer in the UK is the Enneking system. The Enneking system is based on the tumour grade, site, and whether or not the cancer has spread to other parts of the body (metastasised).

The Enneking system divides bone cancers into 3 stages – stages 1 to 3.

- Stage 1 means the cancer is low grade
- Stage 2 means the cancer is high grade

- Stage 3 means that the cancer has spread to another part of the body (metastasised)

The TNM system is based on the tumour size, whether cancer cells have spread into nearby lymph nodes, and whether there are metastases. The TNM system is used to create 4 number stages from 1 to 4.

- Stage 1 means low grade cancer
- Stage 2 means high grade cancer
- Stage 3 means there is more than one area of cancer in the primary site
- Stage 4 means that the cancer has spread to another part of the body such as the lung

Some doctors may refer to stage 0. Stage 0 means carcinoma in situ, which is a very early cancer that has not spread.

The grade of bone cancer cells

Doctors grade bone cancer cells according to how the cells look under a microscope. In low grade cancers, the cells look very like normal cells and tend to grow slowly. High grade cancers tend to grow more quickly and are more likely to spread.



Statistics and outlook for bone cancer

Outlook means your chances of getting better. Your doctor may call this your prognosis.

On CancerHelp UK, we have quite detailed information about the likely outcome of different types of bone cancer. The statistics we use are taken from a variety of sources, including the opinions and experience of the experts who check every section of CancerHelp UK. They are intended as a general guide only.

How reliable are cancer statistics?

No statistics can tell you what will happen to you. Your cancer is unique. The same type of cancer can grow at different rates in different people, for example. The statistics cannot tell you about the different treatments people may have had, or how that treatment may have affected their prognosis. There are many individual factors that will affect your treatment and your outlook.

Types of treatment for bone cancer

When planning your treatment your doctor will take into account the type of bone cancer you have, the stage and your age and general health. The main types of treatment are surgery chemotherapy and radiotherapy.

Surgery

The type of surgery you have depends on the size of your cancer, where it is in your body and whether it has grown into the surrounding tissue.

Limb salvage surgery means removing the bit of bone where the cancer is growing. If

needed, the surgeon replaces it with a metal replacement piece (a prosthesis) or with a bone graft. A graft is a piece of healthy bone from somewhere else in your body.

If the cancer has spread into the tissue around the bone, the surgeon may need to remove the affected limb. If the surgeon only removes the tumour, the risk of the cancer coming back may be too high.

Chemotherapy

You may have chemotherapy to shrink the tumour and make it easier to remove. You may also have it after surgery, to try and kill off any cancer cells that escaped before your tumour was removed.

Radiotherapy

Radiotherapy can be part of treatment for some types of sarcoma. It can shrink a tumour and make it easier to remove. Or you may have it after surgery to kill off any cancer cells that may have been left behind.

About surgery for bone cancers

Surgery is one of the main treatments for primary bone cancers. For many people it can completely remove the tumour. Bone cancers most commonly occur in an arm or leg. The main operation used is called limb sparing surgery. This means taking out the cancer without removing the affected arm or leg. If the risk of cancer coming back is too high, you will have to have the whole limb removed (an amputation).

You may also have surgery to remove cancers that have spread or cancer that comes back.



Limb sparing surgery

More than 8 out of 10 osteosarcomas (80%) are treated with limb sparing surgery. You have the area containing the cancer removed and replaced with a metal implant. If the cancer is near a joint, that will be removed as well and replaced with a false one. Usually you will have chemotherapy afterwards to kill off any cancer cells left behind. If all goes well, you should be able to use the limb pretty much as before.

Amputation

This means removing a part of the body completely. If possible, the surgeon will only remove part of the arm or leg. Sometimes, amputation is extremely major surgery, with a leg and its hip or an arm and its shoulder being removed. These operations are called hindquarter or forequarter operations. The surgeon will only do this if there is no other option.

If at all possible, you will be fitted with a false arm or leg after the operation. This is called a prosthesis. You will have a lot of physiotherapy and occupational therapist to help you learn to use your prosthesis.

Having your operation for bone cancer

Before your operation you will have various tests to check your general health. Your nurse or physiotherapist will teach you breathing and leg exercises to do after your operation.

Immediately after your operation

When you wake up you will have several tubes in place. Your nurses will encourage you to get up as soon as you can. This is to help stop you getting a chest infection or blood clot. You will almost certainly have some pain for the first week or so, but your

medical will try to control it as much as possible.

Your wound

The wound will be covered up when you come round from the operation. It will be left covered for a couple of days. Then the dressings may be changed and the wound cleaned. Your stump or wound area will be sore and sensitive at first. Do follow your surgeon's advice on how you position your limb. It could affect how well you can use the limb later.

Your prosthesis if you've had an amputation – your prosthesis

Once your stump or wound area has healed, you will have a prosthesis fitted – a false arm or leg. Usually these are made especially for you. A technician will take a cast or impression of your stump to make sure the prosthesis fits as well as it can.

What to ask your doctor about surgery for bone cancer

- Why do I need an operation?
- Which type of operation should I have and why?
- What are the risks and benefits of having this operation?
- What happens if limb sparing doesn't work?
- Will the operation cure the cancer?
- What are the long-term effects of this operation?
- Will I need any more surgery in the future?
- When I wake up, will I be in intensive care?
- Will I have pain after this operation?
- What are the possible complications of this type of operation?



- Will I need any other treatment as well as surgery?
- Is there any treatment I can have instead of surgery?
- What will happen if I don't have the operation?
- How long will it take me to get better?
- How can I help myself get over the operation?
- Who will help me learn to manage with my false limb?
- Where is the nearest limb centre to where I live?
- What will happen if the cancer comes back?

About chemotherapy for bone cancer

Chemotherapy uses anti cancer or cytotoxic drugs to destroy cancer cells. Some types of bone cancer respond very well to chemotherapy, particularly Ewing's sarcoma. Doctors often use it for osteosarcoma and spindle cell sarcoma as well.

You will usually have chemotherapy before surgery, to shrink a cancer. And also after surgery to try and stop the cancer coming back. Doctors also use chemotherapy for advanced cancer, to reduce symptoms or to slow the cancer down. This is called palliative treatment.

How you have the treatment

You usually have chemotherapy as a course of several treatments. You have the drugs over several days as an inpatient. You then have a break of a few weeks. This makes up one cycle of treatment. You then start another cycle. A whole course of treatment is made up of a number of cycles – usually at least 6. With some types of chemotherapy you may go into hospital

more than once during each treatment cycle.

There is a lot more information in the main 'chemotherapy' section of CancerHelp UK.

Chemotherapy drugs for bone cancer

Doctors use many different drugs to treat bone cancer. You usually have a combination of drugs.

The side effects of the drugs

All chemotherapy drugs have side effects. The ones you get depend on the drugs and dose you have and your body's individual reaction. Some people have very few side effects, others have more.

Common side effects of chemotherapy include feeling or being sick, diarrhoea, tiredness, sore mouth, hair loss, loss of appetite and skin changes. It is also common to get a drop in your blood cell counts. This puts you at increased risk of infection and can also cause tiredness, shortness of breath and bleeding problems.

Fertility after chemotherapy

You may not be able to have children after treatment with some chemotherapy drugs. In other words, you could be infertile. If you are concerned about this, do talk to your doctor before you start the treatment. You may be able to have sperm, eggs or ovarian tissue frozen to help you have children in the future.

On CancerHelp UK there is information about particular chemotherapy drug combinations used for bone cancer.



What to ask your doctor about chemotherapy for bone cancer

- Why do you think I need to have chemotherapy?
- What will the chemotherapy do for me?
- How will the chemotherapy be given to me?
- Can I have a central line or PICC line put in?
- Will I need a general anaesthetic or can you use local anaesthetic cream (EMLA)?
- Who will look after the central line or PICC line if I have one?
- What will the side effects be?
- How long will the treatment last?
- How often will I have to come to the hospital?
- Is it possible to get help with fares or transport to and from the hospital?
- Are there any long term effects of this treatment?
- Is there a clinical trial that is suitable for me?

Radiotherapy for bone cancer

Radiotherapy uses high energy waves to treat cancer. You may have it to shrink bone cancer before surgery, and to lower the risk of it coming back afterwards (radical radiotherapy). Doctors also use radiotherapy to treat bone cancers that cannot be removed because of their location in the body.

It can slow the growth and control the symptoms of advanced cancers (palliative radiotherapy).

Having your radiotherapy

You have this treatment in the radiotherapy department at your cancer centre. For

radical radiotherapy you usually have treatment every day from Monday to Friday, with a break at weekends. A course of treatment can last for a few days or a few weeks. Each treatment takes only a few minutes.

Palliative radiotherapy is usually given in 1 to 5 treatment sessions.

What are the side effects?

Radical radiotherapy usually causes tiredness, reddening of the skin in the treatment area, and loss of hair in the treatment area. Other side effects depend on which part of your body is being treated. Palliative radiotherapy does not usually cause many side effects.

Follow up treatment for bone cancer

After your treatment has finished, you will have regular check ups. These may include examination by your doctor and X-rays.

If you have had osteosarcoma or Ewing's sarcoma you will have regular chest X-rays. This is because these cancers can spread to the lungs.

For the first couple of years, you are likely to have check ups every 3 months. If all is well, you might then have 6 monthly appointments until you reach 5 years, then yearly. If you are worried or notice any new symptoms between appointments, tell your doctor straight away. You don't have to wait until the next appointment.

Many people find their check ups quite worrying, especially at first. If you are feeling well and getting on with life they can bring back all the worry about your cancer. You might find it helpful to tell someone



close to you how you are feeling. It is quite common nowadays for people to have counselling after cancer treatment. To find out more about counselling, look in the coping with cancer section of CancerHelp UK.

Bone cancer research

All treatments must be fully researched before they can be adopted as standard treatment for everyone. This is so that we can be sure they work better than the treatments we already use. And so we know that they are safe.

First of all, treatments are developed and tested in laboratories. They are only tested in people (in clinical trials) once we know they are safe enough.

There is research going on into treating bone tumours, including into chemotherapy, biological therapies, and radiotherapy during surgery.

What to ask your doctor about bone cancer treatment

- What can you tell me about the stage of my cancer?
- What type of treatment do I need?
- What written information can you give me about these treatments?
- Is there any choice of treatments?
- Is there a choice of anti-sickness medicine if chemotherapy makes me feel sick?
- Should I have any treatment before or after surgery?
- Will I just need one operation, or will I have to have more?
- What are the risks and benefits of these treatments?
- What are the side effects?
- How can I help to reduce the side effects?
- Are there any long-term effects of this treatment?
- Will my future fertility be affected?
- Can you arrange sperm banking or egg freezing for me?
- How often will I have to come to the hospital for treatment?
- Is it possible to have any help with the cost of fares to the hospital?
- What do I do if I'm unwell at home after treatment?
- How long will the treatment last?
- Can I have a second opinion?
- Are there any experimental treatments or trials that might help me?
- Is there a counsellor here I could talk things through with?
- How can I get a referral to a Macmillan nurse or CLIC Sargent social worker?
- How often will you see me when my treatment is finished?
- How will you know if the cancer has come back?
- What should I do if I am worried between appointments?



Notes

More information

For more information about bone cancer, visit our website

<http://cancerhelp.cancerresearchuk.org>

You will find a wide range of detailed, up to date information for people affected by cancer, including a clinical trials database that you can search for cancer trials in the UK. You can view or print the information in a larger size if you need to.

For answers to your questions about cancer call our Cancer Information Nurses on **0808 800 4040** 9am till 5pm Monday to Friday

Adapted from Cancer Research UK's Patient Information Website CancerHelp UK in November 2011. CancerHelp UK is not designed to provide medical advice or professional services and is intended to be for educational use only. The information provided through CancerHelp UK and our nurse team is not a substitute for professional care and should not be used for diagnosing or treating a health problem or disease. If you have, or suspect you may have, a health problem you should consult your doctor. © Cancer Research UK 2011. Cancer Research UK is a registered charity in England and Wales (1089464) and in Scotland (SC041666).