

Bone cancers

If you or your loved one has been diagnosed with a bone cancer – we are here to help.

Bone cancer, also called bone sarcoma, is a cancer that can grow in any bone of the body. Bones like the rest of the human body are living tissue made up of living cells.

There are two types of bone cancer and they are very different.

1. **Primary bone cancer.** This cancer starts in the bone itself, either on the inside or outside of the bone.
2. **Secondary bone cancer.** This cancer has started somewhere else in the body and has spread to the bone(s). This is also called 'metastatic bone cancer'.

The most common symptom of bone cancer is pain in the bone and joints. This pain becomes constant and may not get better with mild painkillers such as Panadol. Often it is worse at night and when being active.

Other symptoms can include:

- bone or joint swelling in the area of pain
- possibly a lump or mass in the area of bone or joint pain
- stiff or tender bone
- problems with movement
- unexplained weight loss
- loss of feeling in the affected limb
- feeling tired.

Most people having any of the above symptoms do **not** have bone cancer. These symptoms can also be due to other less serious conditions such as joint strain, injury or arthritis.

Only a doctor can tell if you have bone cancer. If you have any of these symptoms for more than two weeks, you should see your GP (local family doctor).

Your first tests for diagnosis

Placing you at the centre of our work, your specialist will determine where your cancer started (what type of cell) and what type of bone cancer it is.

Bone cancer can be either:

- **Primary** bone cancer is rare and there are more than 30 different types of this cancer disease.
- **Secondary** bone cancer is more common. This cancer is metastatic, which means it started in another place of the body and has travelled to the bone(s).

To determine your condition, our experts will work with you and support you through a medical examination and other key tests such as:

- Pathology (blood tests)
- Imaging (scans and x-rays)
- Biopsy.

Diagnosis

As the largest bone and soft tissue sarcoma service in Australia, we are dedicated to providing you with the best testing and treatment for bone cancer.

We will design and work to a diagnosis and treatment plan that best responds to your condition and individual needs.

To diagnose **bone** we will take:

- X-rays – to look at the overall structure of bone and to see if the tumour is coming from the bone or affecting the bone
- Bone scans are used to see if the bone is more active than normal. The special radioactive dye used in bone scans will show an increased signal if there is a tumour destroying bone or growing within bone. This test is good for showing if there is one or more sites within the bone that is affected by tumour
- MRI is a specialised scan that allows the specialist to see through the bone and soft tissue. MRI is good for precisely locating exactly where the tumour is. Surgeons rely on MRI to accurately plan where and how they perform surgery to give the best results. This will be done first to show the exact size and place of the tumour.
- Thallium or PET scan – look at how active the tumour is. These scans give your specialist information about how aggressive your tumour is.
- CT scans are used to scan the chest where sarcomas may spread.
- Bone biopsy - is a small sample of cells from the affected bone area. The biopsy is done after all other investigations. The biopsy is usually performed under CT guidance. The biopsy sample will be tested by the pathologist to determine the exact nature of the tumour.

Focusing on you (treatment)

Your care will be coordinated between St Vincent's and Peter MacCallum. Your doctor will discuss and develop the best treatment plan for you. Treatments will depend on your diagnosis.

Bone cancer treatment will depend on:

- the type of disease it is
- whether it has spread and how far (its stage)
- your general health and wellbeing
- your needs.

For most types of bone cancer, surgery is the main treatment. It is used to remove the cancer, surrounding bone tissue and/or other infected areas such as lymph nodes.

Our expert surgeons always aim to spare the limb where possible. This is called '**limb-sparing**' surgery. This surgery means to remove the area of bone affected by the cancer and if needed replace this with a bone from another part of the body or with an artificial (fake) bone or joint usually made of metal.

Additional treatments to surgery may involve:

- chemotherapy (anti-cancer drugs) to help shrink the cancer cells before surgery or to destroy the cancer cells after surgery.
- radiation therapy (strong and powerful beams of radiation/energy to kill and/or slow cancer cells) either before or after surgery or both.
- clinical trials or
- a combination of these.

Treatment for secondary bone cancer is different to treatment for primary bone cancer. Secondary bone cancer treatments need to consider where the cancer started (primary source) and this treatment will be based on this.

For example: a secondary bone cancer that has come from a primary lung cancer, may receive the same treatment as lung cancer. This will all depend on the disease and its stage as well as your needs.

Enhancing your care (after treatment)

After effective treatment, patients will continue to see their specialist every three months. These visits are used to monitor your health and may include tests such as pathology, imaging (scans and x-rays) and small biopsies. Your specialist will discuss the best follow-up plan for you.

Living with cancer

We know how hard cancer and treatment can be. Your lifestyle and that of your loved one's will be disrupted and changed. During this time, it is common to struggle with ongoing concerns about cancer and therapy. There are many expert groups available to support you through this time, including:

- [Australia and New Zealand Sarcoma Association](#)
- [Cancer Council Australia](#)
- [Cancer Council Victoria](#)

Support

We focus on all aspects of your health and wellbeing. Our sarcoma experts will help support and guide you to the best information and managed care.

Our specialist nurses can refer you to our:

- [allied health services](#)
- [support services](#)
- [patient information resources](#)
- support groups.

PATIENT AND CARER RESOURCES

For more information about bone cancers and their treatment download a copy of Cancer Council Victoria's fact sheet:

- [Understanding Primary Bone Cancer: Information for people affected by cancer](#)