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## Bone cancer

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### Summary

- Primary bone cancer starts in the bone and accounts for less than one per cent of people with bone cancer.
  - Secondary bone cancer is the most common form of bone cancer and is caused by the spread of cancer cells from a cancer somewhere else in the body, such as the breast, prostate or lungs.
  - Treatment for bone cancer may include surgery, radiotherapy, chemotherapy and hormone therapy.
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Bone cancer is a rare form of cancer. Although bone looks and feels quite hard, it includes living cells. These cells can develop tumours, or cancer. The tumour may start in the bone (primary cancer) or may start in another part of the body and spread to the bone (secondary cancer).

### Symptoms of bone cancer

The signs and symptoms of bone cancer include:

- painful bones and joints – the pain is often worse at night
- swelling of bones and joints
- problems with movement or increased pain during activity
- susceptibility to fractures.

Other less common symptoms can include:

- unexplained weight loss
- tiredness
- fever and sweating.

Remember, bone cancer is very rare, so if you have any of these symptoms, it is more likely to be caused by another condition. Always see your doctor if you have symptoms that last for longer than two weeks.

### Diagnosis of bone cancer

Diagnosing bone cancer involves a number of tests, including:

- **x-rays and bone scans** – will show the exact location and size of the cancer (these are always done prior to biopsy)
- **bone biopsy** – a small sample of cells is removed from the bone and examined in the laboratory for the presence of cancer cells. If the cells are cancers, further tests may be done by a pathologist to determine the exact type of cancer
- **magnetic resonance imaging (MRI) scan** – is similar to a CT scan, but uses magnetism instead of x-rays to build three-dimensional pictures of your body. These are more commonly being used to investigate possible bone tumours.

### Primary bone cancer

Primary bone cancer, or cancer that starts in the bone, is quite rare. About 72 people develop bone cancer in Victoria each year. Rates for males and females are very similar.

There are over 30 types of bone cancers. The most common type of primary bone cancer is osteosarcoma. This cancer usually affects teenagers and young adults. It can affect any bone, but the arms, legs and pelvis are more commonly affected. Other less common forms of primary bone cancer include **Ewing sarcoma**, malignant fibrous histiocytoma and **chondrosarcoma**.

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The causes of primary bone cancer are not known. However, we do know that if you have certain other benign bone diseases, you may be at a higher risk. Some examples include **Paget disease of the bone**, **fibrous dysplasia** or multiple enchondromas.

People who have had radiotherapy to an area that includes the bones have a slightly increased risk of developing cancer in one of these bones. However, most people who have had radiotherapy in the past won't develop a bone cancer. Certain genetic factors can also increase your risk.

### **Treatment for primary bone cancer**

Most people with primary bone cancer will need a combination of different treatments. Surgery is the main treatment for most types of bone cancer and can be used to remove the cancer, surrounding bone tissue and nearby lymph nodes. There are different types of surgery. Limb-sparing surgery is the most common treatment. In severe cases, the affected limb may need to be amputated, but this is rare.

Treatment may also include radiotherapy (x-rays to target and kill the cancer cells) and chemotherapy (anti-cancer medication). These may be given before surgery, to shrink the cancer, or afterwards to destroy any remaining cancer cells.

### **Secondary bone cancer**

Secondary bone cancer is the most common bone cancer. It is a cancer that starts somewhere else in the body and spreads (metastasises) to the bone. The most common cancers that spread to the bone are cancers of the breast, prostate, lung, kidney and thyroid.

### **Treatment for secondary bone cancer**

Treatment depends on the treatment for the original cancer, but usually includes chemotherapy, radiotherapy or hormone therapy. Surgery may be needed to strengthen the affected bone. You may also need regular pain-relieving medications and bone-strengthening medications called bisphosphonates.

All treatments can have side effects. Your medical team will discuss these with you before you begin any type of treatment.

### **Complementary and alternative therapies**

When used alongside your conventional cancer treatment, some of these therapies can make you feel better and improve quality of life. Others may not be so helpful and in some cases may be harmful. The Cancer Council Victoria booklet called **Understanding complementary therapies** (pdf) can be a useful resource.

Before choosing an alternative remedy, discuss it with your doctor or a cancer nurse at the Cancer Council on 13 11 20.

### **Research into bone cancer**

Early detection and better treatment have improved survival for people with bone cancer. Research for bone cancer is ongoing. Clinical trials can test the effectiveness of promising new treatments or new ways of combining cancer treatments. Always discuss treatment options with your doctor.

### **Your sexuality and bone cancer**

Having bone cancer and its treatment can affect the way you feel about your body, who you are, your relationships, the way you express yourself sexually and your sexual feelings (your sexuality). These changes can be very upsetting. You may also be very concerned about the effect it may have on your personal relationships.

You may find it difficult or embarrassing to talk about cancer and sexuality. However, most doctors and nurses are very understanding, and even if they're unable to help, they can refer you to a doctor or therapist who specialises in sexual problems.

If you have a partner, it helps to be as open as possible with them about how you are feeling. If you feel you would like to discuss things further, ask your doctor for a referral to a counsellor, or call the Cancer Council on 13 11 20.

The Cancer Council Victoria booklet called **Sexuality, intimacy and cancer** (pdf) may also be helpful to read.

### **Caring for someone with cancer**

Caring for someone with cancer can be a difficult and emotional time. If you or someone you know is caring for someone with bone cancer, there is support available. The Cancer Council Victoria booklet called **Caring for someone with cancer** may also be helpful to read.

### **When a cure for bone cancer isn't possible**

If bone cancer has been diagnosed in its later stages, or if it is a secondary bone cancer, the cancer may have spread to the point where a cure is no longer possible. Treatment then focuses on improving quality of life by relieving the symptoms (this is called 'palliative' treatment).

You may be given chemotherapy, radiotherapy and surgery to help with this. You may also have medications to relieve pain, nausea and vomiting. The Cancer Council Victoria booklet called **Living with advanced cancer** (pdf) may be helpful to read.

### **Where to get help**

- Your **GP (doctor)**
- **Cancer Council Victoria, Information and Support Service** Tel. **13 11 20**
- **Multilingual Cancer Information Line**, Victoria Tel. **13 14 50**
- **WeCan website** helps people affected by cancer find the information, resources and support services they may need following a diagnosis of cancer.

**This page has been produced in consultation with and approved by:**

Cancer Council Victoria

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