This Information Sheet is about cancer that has spread from the part of the body where it started, called its primary site, to the bone.

Sometimes cells break away from the primary cancer and are carried by the blood stream to another part of the body. The cancer cells settle in this new place and may form another tumour. This can be in the bone. This new cancer is called a secondary cancer or metastasis.

Not all secondary cancers cause symptoms or problems. Any type of cancer can spread to the bone but the most common ones to do this are breast, prostate, lung, thyroid, kidney and melanoma.

**Symptoms of secondary bone cancer**

**Bone pain** – Often it is a dull, persistent ache that gets worse at night. If you have this type of pain and it lasts for one to two weeks, let your doctor know.

**Weakened bones** – A bone that breaks with little or no force (pathological fracture).

**Raised calcium levels in the blood (hypercalcaemia)** – This can make you feel tired, sick (nauseated), constipated, thirsty or confused.

**Pressure on the nerves in the spinal cord** – If the bone cancer affects the bones in the spine it can cause pain, muscle weakness, and tingling or numbness of the limbs.

In the lower spine, pressure can affect the nerves to the bladder and bowel. If this is not treated quickly there is a risk of paralysis.

It is very important to tell your doctor if you have these symptoms.

**How secondary bone cancer is diagnosed**

- **Blood tests** to check your calcium levels
- **Chest X-ray**
- **Bone X-ray** (Which does not always show bone cancer.)
- **Bone scan** – Uses a mildly radioactive substance injected into a vein. Abnormal bone absorbs this and shows as ‘hot spots’ on the scan. (This does show arthritis as well as cancer in the bone.)
- **CT Scan** – A technique for constructing pictures from cross sections of the body by X-raying the part of the body to be examined from many different angles.
- **MRI Scan** – A scan that uses magnetic resonance to detect abnormalities.
- **PET** – A scan technique that is used to build up clear and very detailed pictures of the body. The person is injected with a glucose solution containing a very small amount of radioactive material. The scanner can ‘see’ the radioactive substance. Damaged or cancerous cells show up as area where the glucose is being taken up.
- **Biopsy** – A needle biopsy to take a small sample of bone to look at under a microscope.
Treatment for secondary bone cancer

The aim of treatment is to:

- relieve symptoms
- reduce the number of cancer cells
- reduce the risk of a fractured bone
- lower the risk of hypercalcaemia
- relieve spinal cord compression.

The types of treatment used are:

- painkillers given to reduce pain.
- radiation therapy which is given to relieve symptoms. It is very effective on bone pain, and to relieve the symptoms of bone compression. Radiation can be given as external beam or as a radioisotope, a radioactive liquid given as a drip or injection into a vein.

Depending on the type of cancer you have you may be offered:

- chemotherapy
- hormonal therapy
- bisphosphonates (bone strengthening drugs)
- steroids (high doses of steroids used to relieve pressure for example in the spine).
- surgery (sometimes surgery is used to strengthen a weaken bone).

People with secondary bone cancer can feel very tired. The Cancer Society has an Information Sheet “Cancer-Related Fatigue” which explains cancer-related fatigue and its causes. Some practical suggestions for managing fatigue are offered. To receive a copy, contact your local Cancer Society or read it online at the web address at the bottom of this page.

Suggested reading and websites

Reading


Quick facts: Bone Metastasis. American Cancer Society. USA. 2008

Websites

CancerBackup – coping with advanced cancer: www.cancerbackup.org.uk/Resources/support/Advancedcancer/Copingwithadvancedcancer

National Cancer Institute – when cancer returns: www.cancer.gov/cancertopics/When-Cancer-Returns

Palliative Care Australia
‘Asking Questions can Help’ – An online booklet for patients and families – to view this click ‘publications’ to link to the booklet: www.pallcare.org.au

Skylight
Skylight helps children and young people deal with change, loss and grief. skylight.org.nz