



Chemotherapy or Hormonal Therapy

Chemotherapy or hormonal therapy (systemic therapies) are taken by mouth or injected. These therapies are administered through the bloodstream. This is an effective way to reach cancer cells that have spread throughout the body.

Radiation Therapy or Surgery

When a cancer has metastasized to bones, radiation therapy or surgery may be used to relieve symptoms. Between 75 and 90 percent of patients will experience pain relief for at least six months after radiation therapy. For spine patients, Southwest's interventional radiologists can use kyphoplasty to help stabilize the bone and restore some of the height in vertebra. This helps relieve pain and make radiation treatments easier.

Radioactive Drugs

Radiopharmaceuticals may be injected into a vein and settle into bone areas that contain cancer. This kills the cancer cells and relieves pain. If cancer has spread to many bones, this approach is much better than trying to use radiation at each affected bone.

What's Next?

Recent advancements in detection and treatment offer new hope and better outcomes for cancer patients. You may want to ask about clinical trials that may be appropriate for you to consider.

Keep a positive attitude, and know that your healthcare team will work with you to improve the quality and length of your life.

The Southwest Difference

The diagnosis of cancer can be overwhelming. You and your loved ones may be facing many questions, medical treatment options and lifestyle changes.

At Southwest's Regional Cancer Center, we believe that superb cancer care goes beyond the latest technology and innovative treatments. We are here to help you and your loved ones keep the best quality of your life throughout your journey with cancer.

Cancer Support Group

360.514.2174

www.swmedicalcenter.org/cancersupport



SOUTHWEST
Regional Cancer Center
Cancer care for the whole person

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Understanding Bone Metastasis



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Regional Cancer Center
Cancer care for the whole person



When cancer spreads from another part of the body to bone(s), this is known as bone metastasis. Bone metastasis has a negative effect on a cancer patient's quality of life. However, it rarely shortens a patient's survival beyond the effects of the primary cancer.

What Are the Effects?

The main clinical problem is debilitating pain. Fortunately, radiation therapy offers effective, rapid relief from pain for most patients. Some effects are:

- Pain
- Functional disability
- Fractures
- High blood calcium (hypercalcemia), because calcium is released from damaged bones
- Spinal cord pressure (epidural compression)

When a weight-bearing bone is involved, a fracture caused by bone metastasis can result in partial or complete disability.

Am I at Risk?



The most common primary cancers that spread to bone are lung, prostate, breast, kidney, and thyroid. Cancers of the gastrointestinal tract are the least likely to spread to bone.

If the cancer has spread from lung to bones, the tumors in the bones are

actually made up of cancerous lung cells. When this happens, the patient has metastatic lung cancer with metastatic bone tumors.

More than 60 percent of bone metastases occur in the spinal column's bones. Only about 7 percent occur in bones below the knee or elbow.

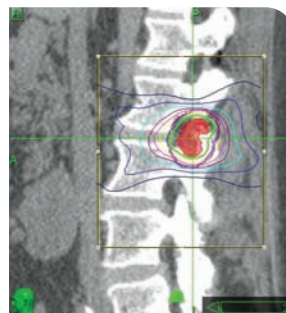
Unlike metastatic tumors, primary bone tumors start in the bones. Primary bone cancer is rare, although it does occur.

What Are the Symptoms?

The usual symptom of bone metastasis is localized pain. However, symptoms may vary depending on the location and size of the cancer.

Tumors that occur in or near joints may cause swelling or tenderness in the affected area. Bone cancer also can interfere with normal movements and weaken the bones. This occasionally may lead to fractures. Other symptoms may include fatigue, fever, weight loss and anemia.

How Is Bone Metastasis Found?



To diagnose bone cancer, your doctor asks about your personal and family medical history and does a complete medical exam. Your doctor may order a blood test to determine the level of an enzyme called alkaline phosphatase. A large amount of this enzyme can be found in the blood when the cells that form bone tissue are very active. This may be due to disease or a tumor causing production of abnormal bone tissue.

X-rays can show the location, size and shape of a bone tumor. If x-rays suggest that a tumor may be cancerous, your doctor may recommend special imaging tests.

At Southwest we offer:

- Bone scan
- Angiogram
- CT scan (particularly effective for the spine)
- MRI (effective at showing images of bone marrow, which is usually involved in bone cancer)

We will also need to remove a sample of tissue from the bone tumor. This biopsy will help confirm whether cancer is present. If a metastatic tumor is diagnosed before a primary site is found, we will also do tests to locate the primary cancer.

What Treatments Are Available?

When planning treatment, your doctor will take several factors into consideration, including:

- What type of primary cancer do you have?
- Which bones has the cancer spread into?
- What is your overall health?
- Are any bones severely weakened or broken?
- What is your body's response to treatment of the primary cancer?

We offer safe and effective ways to treat pain caused by bone metastasis. These include treatments that kill cancer cells, slow their growth or reduce bone damage. In addition, Southwest's Interventional Pain Clinic may be able to help you find effective ways to relieve and manage your pain.

"Southwest did an amazing job from start to finish. They were on top of every aspect of my diagnosis, counseling, treatment and support. I couldn't ask for anything more. These people are the very best."

— Southwest cancer patient