

# ASCO ANSWERS

## BONE METASTASIS

### WHAT IS BONE METASTASIS?

The spread of cancer from the area in the body where it started to another part of the body is called metastasis. Bones are one of the most common sites of cancer metastasis. Some cancers are more likely to spread to the bones, including breast, prostate, kidney, thyroid, and lung. When cancer cells break away from the original (primary) cancer, travel through the body, and form a tumor in a bone, it is not called bone cancer (cancer that starts in the bone). Instead, metastatic cancer is named after the primary cancer. For example, lung cancer that spreads to the bones is called metastatic lung cancer.

### WHAT ARE THE SYMPTOMS OF BONE METASTASIS?

When cancer metastasizes to the bones, the bones can become weak or unstable. Bones most commonly affected include the upper leg bones, the upper arm bones, the spine, ribs, pelvis, and skull. Bone pain is the most common symptom. Bone fractures or breaks may also occur. If a tumor presses on the spinal cord, a patient may feel weakness or numbness in the legs, arms, or abdomen. Bones damaged by cancer may also release high levels of calcium into the blood (hypercalcemia), causing nausea, fatigue, thirst, frequent urination, and confusion.

### HOW IS BONE METASTASIS DETECTED?

Bone metastasis may be found at the time the primary cancer is diagnosed. Or, if a patient is having symptoms, a doctor may recommend tests that detect it. The types of tests used depend on the symptoms and where pain is felt. Tests used to detect bone metastasis include x-rays, bone scans, CT (computerized tomography) scans, PET (positron emission tomography) scans, and MRI (magnetic resonance imaging) scans. Laboratory tests check blood or urine for high levels of substances that damaged bones release into the body. A bone biopsy may be done if other tests cannot determine whether a cancer has spread to the bones.

### HOW IS BONE METASTASIS TREATED?

Treatment goals include stopping a tumor from growing or slowing its growth, preventing further bone damage, and managing symptoms, such as pain. The treatment, or combination of treatments, used depends on the type of primary cancer a patient has, the location and number of tumors, the patient's overall health, and which treatments the patient has already received.

Bisphosphonates, medications that slow bone thinning, reduce pain, and decrease hypercalcemia, may be given. Bone metastasis in only one area is commonly treated with radiation to relieve pain and strengthen the bone. Surgery may be used to remove a tumor or prevent or treat a bone fracture, and a special cement can be injected into a bone to stabilize it. Chemotherapy, hormone therapy, and radiopharmaceutical therapy are treatment options if bone metastasis is in more than one area. You and your doctor may also consider a clinical trial. The side effects of treatment can often be prevented or managed with the help of your health care team.

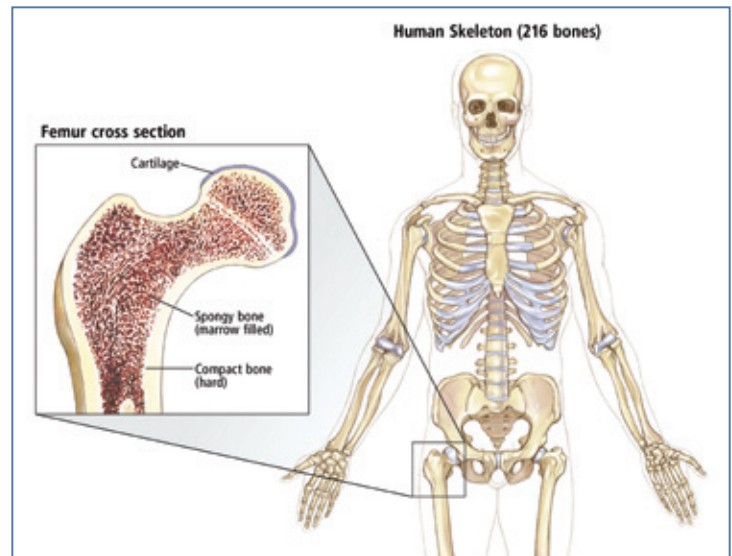



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Find additional cancer information at [www.cancer.net](http://www.cancer.net).

## QUESTIONS TO ASK THE DOCTOR

Regular communication is important in making informed decisions about your health care. Consider asking the following questions of your doctors.

- Which bone or bones has my cancer spread to?
  - Can you explain my test results to me?
  - Would you explain my treatment options? Can my bone metastasis be cured?
  - Which treatments, or combination of treatments, do you recommend? Why?
  - What is the goal of the treatment(s) you are recommending?
  - Should I see my dentist before beginning bone strengthening treatment?
  - Which clinical trials are available to me?
  - Would you explain the options for managing my pain with medication?
  - In addition to medication, what other strategies can I use to manage pain?
  - What signs or symptoms should I look for?
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**Learn more about what to expect during a bone scan**
- What follow-up tests will I need to have?
  - How will bone metastasis affect my daily life? What changes will I need to make to my daily routine to reduce the risk of bone fractures and to manage pain?
  - Where can I find emotional support for me and my family?
  - Whom do I call for questions or problems?
  - Is there anything else I should be asking?

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**For more information, visit ASCO's patient website, [www.cancer.net](http://www.cancer.net), or call 888-651-3038.**

## TERMS TO KNOW

### **Bone biopsy:**

Removal of a tissue sample from the bone that is then examined under a microscope to check for cancer cells

### **Bone scan:**

A diagnostic imaging test used to find out if the bone is damaged

### **Chemotherapy:**

The use of drugs to kill cancer cells

### **Clinical trial:**

A research study that tests a new treatment or drug

### **Hormone therapy:**

Treatment that blocks hormones that cause cancer cells to grow

### **Oncologist:**

A doctor who specializes in treating people with cancer

### **Osteonecrosis:**

Weakening and bone loss in the jaw; a rare side effect of some bone loss prevention medications

### **Osteoporosis:**

A condition where the bones become thinner and more porous

### **Prognosis:**

Chance of recovery

### **Radiation therapy:**

The use of high-energy x-rays to destroy cancer cells

### **Radiopharmaceutical therapy:**

Drugs injected into the body to destroy cancer cells

### **Secondary (metastatic) tumor:**

A tumor that started in one part of the body and then spread to another