
Understanding Bone Metastasis

Bone metastasis is when cancer that started in another part of the body spreads to the bone. It's not primary bone cancer because it didn't start in bone cells.

Cancer starts when cells in the body change and grow out of control. These cells can form lumps called tumors. Cancer starts in a certain part of the body (called the primary site). But cancer cells can break away from a tumor and spread (metastasize) to other parts of the body. They spread by traveling through blood or lymph vessels.

Certain types of cancer are more likely to spread to the bone than others. These include cancers of the breast, prostate, lung, bladder, kidneys, and thyroid.

Bone metastasis most often affects the bones of the spine (vertebrae). The thigh (femur), hips (pelvis), ribs, breastbone (sternum), upper arm (humerus), and skull are other common sites of bone metastasis.

How to say it

meh-TAS-tuh-sihs

What causes bone metastasis?

Experts don't know exactly why cancer spreads to the bones. It's thought that bones have proteins, hormones, or other substances that attract cancer cells. The structure and makeup of the bones may also make it easier for cancer cells to attach and grow.

Once cancer moves into a bone, the bone may get weak or hard. This can cause pain. It also makes the bone more likely to break.

Symptoms of bone metastasis

Bone metastasis often causes symptoms. But they depend on which and how many bones are affected. Symptoms can vary depending on if the bones have already become weak or hard. Possible symptoms include:

- Bone pain that gets worse over time and may be worse at night
- Broken (fractured) bones, often with no known cause
- Back pain, numbness, weakness, and bladder or bowel problems if a tumor in a vertebra presses on the spinal cord
- Extreme tiredness (fatigue), muscle weakness, upset stomach (nausea), vomiting, hard stools, confusion, poor memory, frequent thirst, or the need to pee often if there's too much calcium in the blood (bone metastases often cause high blood calcium levels)

Anyone with a history of cancer should see a healthcare provider if they have any of these symptoms. Imaging scans and blood tests are needed to diagnose bone metastasis.

Treatment for bone metastasis

Treatment for bone metastasis is focused on easing symptoms and slowing the growth and spread of the cancer.

Options depend on the type of primary cancer, the number of bones affected, and which bones are affected. It may include:

- **Medicines.** These are used to help ease pain and other symptoms. They may also help prevent or reduce bone damage and lower calcium levels.
- **Hormone therapy.** Medicines are used to prevent certain hormones the body makes from helping cancer cells grow.
- **Targeted therapy.** Special medicines are used to focus on, attack, and kill cancer cells. They help limit the damage to healthy cells.
- **Radiation therapy.** High-energy X-rays are used to kill cancer cells or slow their growth. Radiation can help relieve pain.
- **Chemotherapy.** Strong medicines are used to kill cancer cells or slow their growth.
- **Ablation.** Heat or cold are used to kill cancer cells.
- **Surgery.** Different types of surgery may be used to stabilize or repair bones.

Treating bone metastases right away can help keep symptoms from getting worse.

Possible complications of bone metastasis

Bone metastasis is a complication of the underlying cancer in the body. If the cancer continues to spread, it can keep causing symptoms. Over time, it can lead to death.

The goal of treatment is to control the cancer growth and spread. And to help you feel as well as you can.

To learn more

To learn more about bone metastasis, these resources may help:

- [American Cancer Society at www.cancer.org](http://www.cancer.org) or 800-227-2345
- [National Cancer Institute at www.cancer.gov](http://www.cancer.gov) or 800-422-6237