

Metastatic Breast Cancer: **BONE PROTECTION**

Bone metastases and bone health

As treatment for metastatic breast cancer improves, so does survival. With people living longer with metastatic breast cancer, it's even more important to prevent and treat any side effects of bone metastases.

Untreated side effects of bone metastases can lead to:

- Chronic pain.
- Emergency room visits/hospitalization.
- Surgery to prevent or repair broken bones.
- Radiation to help control bone pain.
- Pressure on the spinal cord which can cause pain, weakness and interfere with bladder and bowel control.



Metastatic breast cancer in the bone occurs when breast cancer cells spread beyond the breast to the bone. This is called bone metastases. **Bone metastases** are not bone cancer. Even though the cancer is in the bone, it's still breast cancer. Bone metastases are treated with breast cancer drugs, not bone cancer drugs.

The most common sites for bone metastases include the spine, skull, ribs, pelvis and long bones in the arms and legs. For people with estrogen receptor-positive metastatic breast cancer, bone is the most common site of metastases.

How do bones work in our body?

Bones provide support for our bodies to walk or stand. They are made up of tissues, calcium and bone cells. Bone is always forming and breaking down in our bodies to keep bones strong and release calcium into the bloodstream.

How do breast cancer cells affect bones?

A person with bone metastases may have both osteolytic and osteoblastic areas.

- Osteolytic or lytic metastases cause holes in the bone. They can look like the holes in Swiss cheese. They weaken the bones and cause them to break easily.
- Osteoblastic or blastic metastases make bone appear more dense. These areas of the bone are abnormal and break more easily than normal bone.

Bone metastases can lead to bone complications, including bone pain, bone fractures (breaks), loss of mobility and/or spinal cord compression.

This fact sheet is intended to be a brief overview. For more information, visit komen.org or call the Komen Patient Care Center's Breast Care Helpline at 1-877 GO KOMEN (1-877-465-6636) Monday through Thursday, 9 a.m. to 7 p.m. ET and Friday, 9 a.m. to 6 p.m. ET or email at helpline@komen.org. Se habla español.



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Resources

Susan G. Komen®
1-877 GO KOMEN
(1-877-465-6636)
komen.org

Metastatic Breast Cancer Impact Series

Attend Komen's MBC Impact Series, a free educational event series for people living with metastatic breast cancer and their loved ones.

Komen Metastatic Breast Cancer (Stage IV) Group

The [Facebook group](#) provides a place where those living with metastatic breast cancer, and those who love them, can find support, friendship and information. Click the link above or visit Facebook and search for Komen Metastatic Breast Cancer (Stage IV) Group and request to join.

Related online resources:

- [After Early Breast Cancer – Signs and Symptoms of Metastatic Breast Cancer](#)
- [Metastatic Breast Cancer: What Is It?](#)
- [Metastatic Breast Cancer: HER2-Targeted Therapies](#)
- [Metastatic Breast Cancer: Quality of Life](#)
- [Metastatic Breast Cancer: Treatment Overview](#)
- [Metastatic Breast Cancer: End-of-Life Care](#)
- [Metastatic Breast Cancer: Questions to Ask the Doctor](#)

How to prevent and manage bone complications

If you have bone metastases, your treatment plan will include a bone-strengthening drug (a bisphosphonate or denosumab). These drugs can strengthen and protect your bones and reduce bone complications. Talk with your doctor to discuss the use of these drugs and which one is right for you.

Use of a bone-strengthening drug can:

- Help reduce pain caused by bone metastases.
- Lower the risk of bone fractures related to bone metastases.
- Reduce the need for radiation therapy or surgery related to bone fractures and bone pain.

	Bisphosphonates		RANK ligand (RANKL) inhibitor
Drug names (brand names)	Pamidronate (Aredia)	Zoledronic acid (Zometa)	Denosumab (Xgeva)
How is it given?	Given through an IV	Given through an IV	Given by injection under the skin
How often is it given?	Every 3-4 weeks or every 12 weeks	Every 12 weeks	Every 4 weeks

What are the side effects of bone-strengthening drugs?

Bisphosphonates and denosumab can cause bone, joint or muscle pain. These types of pain usually only last for about 1 to 2 days, and only with the first treatment.

If you start having muscle twitching or increased anxiety, let your doctor know. Your doctor may want to check your calcium level.

In rare cases, a disorder called osteonecrosis of the jaw may occur. To reduce this risk, visit the dentist and take care of any dental work before you start one of these drugs.

Managing pain from bone metastases

Bone-strengthening drugs can reduce pain from bone metastases. But they aren't the only treatment option for bone pain. If the bone pain is mild, pain relievers such as ibuprofen (Advil or Motrin), naproxen (Aleve or Naprosyn) or acetaminophen (Tylenol) may help. Tramadol or opioids (such as morphine or oxycodone) can be added if the pain is severe.

Radiation therapy to the bone can relieve pain at the site of the tumor(s) and prevent fractures. Orthopedic surgery can prevent or repair bone fractures.

Drug therapies that control metastatic breast cancer throughout the body can also help treat the pain caused by bone metastases. For example, chemotherapy can relieve bone pain by shrinking the cancer, so it doesn't press on the spine or other bones.

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