

Bone Health

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Living with cancer can have harmful effects on bone health, leading to pain, impaired mobility and increased risk of fractures. But there are ways to prevent and manage bone problems.

Bone contains two main types of cells: osteoblasts, which build new bone, and osteoclasts, which dissolve old bone. When bone is broken down faster than it can be produced, the result is low bone mineral density, known as osteopenia or its more serious form, osteoporosis.

Cancer can tilt the balance toward bone breakdown, making bones more susceptible to fractures. This can also release excess calcium into the bloodstream, a condition known as hypercalcemia of malignancy.

Cancers that start in bones, such as osteosarcoma and chondrosarcoma, are rare in adults. More often, cancer arises elsewhere—such as the breast, lung or prostate—and spreads to the bones, a process known as metastasis. [Multiple myeloma](#), a blood cancer that affects the bone marrow, often leads to bone damage and fractures.

Even cancer that doesn't affect bones directly can contribute to bone problems. Some [chemotherapy](#) and corticosteroids can harm the bones. Hormone therapy that lowers estrogen or testosterone production can cause bone loss. What's more, prolonged inactivity due to illness can weaken the bones.

Preserving Bone Health

Bone loss usually happens slowly, and symptoms may not occur right away. To catch problems early, experts recommend regular DEXA bone density scans and tests to measure calcium, vitamin D and bone biomarkers in the blood.

Lifestyle changes and medications can help prevent or reverse osteoporosis. Eat a healthy diet that includes foods rich in calcium. Your skin makes vitamin D when exposed to sunlight, but deficiency is common; ask your doctor whether supplements could help. Avoid smoking and limit alcohol use, which can harm the bones.

Physical activity, especially weight-bearing exercises like walking, promotes bone production.

Exercises like tai chi and yoga improve strength and balance, reducing the risk of falls. At home, prevent falls by removing clutter and installing handrails.

Bone-modifying medications, including the bisphosphonates Aredia (pamidronate) and Zometa (zoledronic acid) and the RANKL inhibitor Xgeva (denosumab), strengthen bones by inhibiting osteoclast activity. Some research suggests they may also help prevent bone metastasis. Pain relievers, radiation therapy and chemotherapy can help control bone pain.

Don't wait until bone problems become serious. Work with your medical team to develop a plan to prevent or manage bone complications.

Good Sources of Calcium

- Milk, cheese and yogurt
- Leafy green vegetables
- Soybeans and tofu
- Fish with edible bones
- Almonds
- Fortified breakfast cereals