
Strong Bones During and After Cancer Treatment

Keeping your bones strong is a lifelong process.

The more you know about what you can do to keep your bones strong, the more likely you are to prevent osteoporosis. Osteoporosis is a silent disease that causes bones to become thin and weak, often resulting in fractures (broken bones).

Did you know that certain types of cancer increase the risk of osteoporosis? Some of these include:

- Breast cancer
- Ovarian Cancer
- Prostate cancer
- Testicular cancer
- Multiple myeloma (a bone marrow cancer)
- Various metastatic cancers (cancers that have spread throughout the body)

Certain medications used to treat cancer can also increase the risk of osteoporosis.

These include:

- Aromatase inhibitors (such as Arimidex™, Femara™, Aromasin™)
- Some chemotherapy medications
- Immunosuppressive medications (medications that slow or stop your immune system such as methotrexate)
- Androgen deprivation therapy (known as ADT, used to lower hormones)
- Steroid medications (such as prednisone, cortisone)

There are many *risk factors* for osteoporosis.

Some of these include:

- Being female
- Older age
- Being small and thin
- Family history of osteoporosis or hip fracture
- Height loss of more than 1-1/2 inches or stooped posture
- Having reached menopause and early menopause in women (age 45 or younger)
- Breaking a bone after age 50
- Taking medications that may cause bone loss such as steroids; excess thyroid hormone, the blood thinner, Coumadin™, and some anti-seizure medications
- Certain medical conditions that may cause bone loss such as rheumatoid arthritis
- Eating a nutrient-poor diet, especially if it is low in calcium and/or vitamin D
- Getting too little physical activity
- Smoking
- Drinking too much alcohol

It is important to discuss your personal risk factors for osteoporosis with your health care provider. You cannot change some risk factors for osteoporosis but you can take the following steps to keep your bones strong for life.

- Eat a variety of healthy (nutrient-rich) foods every day. Eat several servings of fruits and vegetables each day. The average person should eat 4 1/2 cups of fruits and vegetables every day.
- If you are underweight. Eat enough calories and protein to reach a healthy weight.
- Get the calcium you need. Consume 1000 to 1200 milligrams (mg) of calcium each day. It is best to get calcium from the foods you eat. Foods rich in calcium such as low-fat dairy foods (milk, yogurt, cheese), dark green, leafy vegetables (bok choy, broccoli, collard greens, kale, and turnip greens), canned fish (sardines, salmon) eaten with bones, or calcium-fortified (with calcium-added) foods. Try to eat a calcium-rich food at each meal. Add calcium supplements (pills) only when you cannot get the calcium you need from food alone.
- Get the recommended amount of vitamin D. There are only a few good natural sources of vitamin D, including fatty fish such as catfish, eel, mackerel, salmon, sardines, and tuna. Small amounts of vitamin D are added to all milk and some types of soy milk, rice milk, almond milk, yogurt, cheese, juice, and nutrition bars. Check with your health care provider to find out how much vitamin D is recommended for you. It is likely that you will need a vitamin D supplement to get enough vitamin D.
- Be physically active. Your bones get stronger and denser when you make them work. Walking, climbing stairs, and dancing are impact (or weight-bearing) exercises that strengthen your bones by moving your body against gravity when you are upright. Resistance exercises such as lifting weights or using exercise bands strengthen your bones and your muscles, too! Tai Chi is an example of physical activity that improves posture and balance to help decrease your risk for falls and fractures. Exercise can be easy; try 10 minutes at a time, adding the minutes up to reach your goal.
- Don't smoke. If you do, STOP. Call 1-866-NYQUITS for information about how to quit.
- Limit alcohol. Before drinking alcohol, it is important to speak to your health care provider about possible interactions with your medication or your medical condition. Too much alcohol can be bad for your bones and your overall health.
- Take action to prevent falls. Most broken bones occur as a result of a fall that can be prevented. Some actions to prevent falls at home include using nightlights, removing or securing scatter rugs, and getting rid of clutter.

If you are living with cancer or you have a history of cancer, here are a few facts to discuss with your health care provider/oncologist:

- You cannot see or feel your bones getting thinner. That is why it is important to ask your health care provider when a bone mineral density (BMD) test is right for you. A BMD test is a quick and easy test that measures the density or thickness of your bones.
- The results of a BMD test can tell if you have normal bone mass, low bone mass (also called osteopenia, a condition that needs to be watched by your health care provider), or osteoporosis.
- Your BMD test results, along with your personal risk factors, can help predict your chance of having a fracture. This can help your health care provider decide if you need an osteoporosis medication.
- There are many medications available to slow bone loss and to help prevent fractures. Talk to your health care provider to find out about treatment options if you are at risk for osteoporosis, have osteoporosis, or you have had a fracture.