

Bone is living, growing tissue. It is made mostly of collagen, a protein that provides a soft framework, and calcium phosphate, a mineral that adds strength and hardens the framework.

This combination of collagen and calcium makes bone both flexible and strong, which in turn helps bone to withstand stress. More than 99 percent of the body's calcium is contained in the bones and teeth. The remaining 1 percent is found in the blood.

Throughout one's lifetime, old bone is removed (resorption) and new bone is added to the skeleton (formation). During childhood and teenage years,

new bone is added faster than old bone is removed, resulting in bones become larger, heavier and denser. This process reaches its peak around age 30 (reaching maximum bone density and strength) and then the process starts to reverse - addition of new bone slows down and the removal of old bone speeds up.

Osteoporosis - which mainly affects women but may also affect men - will develop when bone resorption occurs too quickly or when replacement occurs too slowly.

Osteoporosis is more likely to develop if you did not reach optimal peak bone mass during your bone-building years.

What are the symptoms?

Osteoporosis is often called a silent disease because bone loss occurs without symptoms. People may not know that they have osteoporosis until their bones become so weak that a sudden strain, bump or fall causes a hip to fracture or a vertebra to collapse. Collapsed vertebrae may initially be felt or seen in the form of severe back pain, loss of height, or spinal deformities such as kyphosis (severely stooped posture).



Don't forget Vitamin D

Calcium is absorbed and used only when there is enough vitamin D in the body. About 15 minutes in the sun each day will make all the Vitamin D your body needs.



Do I have it?

Your doctor may recommend you have a bone mineral density (BMD) test. The most widely recognized BMD test is a dual-energy x-ray absorptiometry, or DXA test. It is painless and a bit like having an x ray but with much less exposure to radiation. It can measure bone density at your hip and spine.

How much is enough?

Daily need for over age 50
1,200 mg of calcium
800-1,000 IU of vitamin D

Foods to **AVOID!**

- Foods high in oxalate and phytate (spinach, rhubarb and beet greens) reduce the absorption of the calcium in these foods.
- 100% wheat bran, also high in phytate, will reduce absorption of calcium in other foods eaten at the same time (like the milk on the cereal) so eat these at different times.
- Diet too high in animal protein, sodium and caffeine can decrease calcium absorption.

Talk with your healthcare provider about possible interactions between prescription or over-the-counter medications and calcium supplements.

How much Calcium in 1 cup?

Calcium fortified milk	400 mg
Yogurt, low fat (plain/vanilla/coffee)	400 mg
Calcium fortified orange juice	300 mg
Soymilk, fortified	200-300 mg
Sardines, (w/edible bones) 3 oz.	270 mg
Tofu, firm	258 mg
Salmon, (w/edible bones) 3 oz.	205 mg
Cottage Cheese, 2%	155 mg
Broccoli, raw, 1 cup	90 mg
Orange, 1 medium	50 mg
Pinto beans, 1/2 cup	40 mg
Tuna, canned, 3 oz.	10 mg
Lettuce greens, 1/2 cup	10 mg