

OSTEOPOROSIS —

PREVENTING THE “SILENT DISEASE”

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Osteoporosis, or porous bone, is a disease in which bone density deteriorates, causing bone fragility and an increased risk of fractures in the hip, spine and wrist. Osteoporosis is known as the “silent disease” because it progresses slowly over time, without symptoms, until a fracture occurs.

Both men and women are affected by osteoporosis. In fact, according to the National Institute of Health (NIH) Osteoporosis and Related Bone Diseases National Resource Center, osteoporosis is a major public health threat for 44 million Americans, 68 percent of whom are women. One out of every two women and one in four men age 50 and older will have an osteoporosis-related fracture in their lifetime. Osteoporosis and related fractures have an estimated national direct expenditure of \$14 billion each year. By the year 2025, experts predict that osteoporosis-related fracture costs will rise to \$25.3 billion. Fortunately, for the most part, osteoporosis is preventable.

WHAT IS BONE?

Our bones are living, growing tissues 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 makes bones both flexible and strong, allowing them to withstand stress.

As we age, our skeletons continually lose old bone and form new bone. Children and teenagers form new bone faster than they lose the old bone. In fact, even after they stop growing taller, young people continue to make more bone than they lose. This means their bones get denser and denser until they reach what experts call “peak bone mass.” Peak bone mass is when a person will have the greatest amount of bone density and strength he/she will ever have. This usually happens around age 20.

After a person reaches peak bone mass, the balance between bone loss and bone formation might start to change. In other words, a person may slowly start to lose more bone than she/he forms. Osteoporosis happens when one loses too much bone, makes too little bone, or both.

In midlife, bone loss usually speeds up in both men and women. For most women, bone loss increases after menopause, when estrogen levels drop sharply. In fact, in the five to seven years after menopause, women can lose up to 20 percent or more of their bone density. Osteoporosis is also more likely to develop if a person didn't reach optimal peak bone mass during her/his bone building years.

Any bone can be affected by osteoporosis, but fractures of the hip and spine are of special concern. A hip fracture almost always requires hospitalization and major surgery. It can impair a person's ability to walk unassisted and may cause prolonged or permanent disability or even death. Spinal or vertebral fractures also have serious consequences, including loss of height, severe back pain, and deformity.

Prevention is the key and should begin early in childhood and continue to evolve as one ages.



OPTIMIZE BONE HEALTH

The key to prevention is to get an adequate supply of calcium and vitamin D and participate in weight bearing exercise. These key practices should continue throughout each of life's stages.

- Get daily recommended amounts of calcium and vitamin D
–1200-1500 mg of calcium/400-800 IU of vitamin D
- Engage in regular weight-bearing exercises
–Walking, weight-training, yoga
- Avoid smoking and excessive alcohol consumption
- Talk to your healthcare provider about your bone health and any medications you might be on that could cause bone loss
- Have a bone density test

ASSESS YOUR HOME FOR FALL RISKS

FLOORS. Remove all loose wires, cords and throw rugs. Minimize clutter. Make sure rugs are anchored and smooth. Keep furniture in its accustomed place. Clean spills immediately.

BATHROOMS. Install grab bars and non-skid tape in the tub or shower.

LIGHTING. Make sure halls, stairways and entrances are well lit. Install a night light in your bathroom. Turn lights on if you get up in the middle of the night or keep a flashlight by your bed.

STAIRS. Make sure treads, rails, and rugs are secure.

OTHER PRECAUTIONS. Wear sturdy, low-heeled, rubber-soled shoes. Keep your intake of alcoholic beverages to a minimum. Ask your doctor whether any of your medications might cause you to fall.

To better understand your risk for developing osteoporosis, preventing its development, and treatment options, speak with your healthcare professional. The best way to treat a fracture is to prevent one.

No You Can't Change:

- **Advanced Age**—The older you get, the weaker your bones become.
- **Gender**—Women have a higher chance of developing osteoporosis because of menopausal changes.
- **Family History**—People whose parents have a history of fractures may be at greater risk for fractures.
- **Ethnicity**—Caucasian and Asian women are at highest risk.
- **Body Size**— Small-boned and thin people are at greater risk.

Yes! You Can Change:

- **Sex Hormones**—Low estrogen and testosterone levels can lead to osteoporosis.
- **Calcium and Vitamin D Intake**—People with diets low in calcium and vitamin D are prone to bone loss.
- **Diet**—Eating a well-balanced diet is crucial for bone health and general well being.
- **Medication Use**—Talk to your doctor about the effects of long-term medications on bone density.
- **Lifestyle**—Inactivity and extended bed rest puts your bones at risk for weakening.
- **Smoking and Alcohol Intake**— Excessive alcohol consumption and smoking put your bones at risk for bone loss and fracture.

