

Osteoporosis

Disease of progressive bone loss associated with an increased risk of fractures. It literally means "porous bone." The disease often develops unnoticed over many years, with no symptoms or discomfort, until a fracture occurs.

Affecting 28 million Americans and contributing to an estimated 1.5 million bone fractures per year.

One in two women and one in five men over age 65 will sustain bone fractures due to osteoporosis. Many of these are painful fractures occur as a result of a fall. However, even simple household tasks can produce a fracture of the spine if the bones have been weakened by the disease.

The most serious and debilitating osteoporotic fracture is hip fracture.

Risk Factors

Aging. Everyone loses bone with age. After age 35, the body builds less new bone to replace losses of old bone. In general, the older you are, the lower your total bone mass and the greater your risk for osteoporosis.

Heredity. A family history of fractures; a small, slender body build; fair skin; and a Caucasian or Asian background can increase the risk for osteoporosis.

Nutrition and lifestyle. Poor nutrition, including a low calcium diet, low body weight and a sedentary lifestyle have been linked to osteoporosis, as have smoking and excessive alcohol use.

Osteoporosis has been linked to some medications, including steroids, and to other illnesses, including some thyroid problems.

Prevention

Calcium. During the growing years, your body needs calcium to build strong bones and to create a supply of calcium reserves. Building bone mass when you are young is a good investment for your future. Inadequate calcium during growth can contribute to the development of osteoporosis later in life. Calcium can't prevent gradual bone loss after menopause, it continues to play an essential role in maintaining bone quality. Even if you've gone through menopause or already have osteoporosis, increasing your intake of calcium and vitamin D can decrease your risk of fracture. Dairy products are excellent sources of calcium. An eight-ounce glass of milk contains about 300 mg of calcium. Other calcium-rich foods include green leafy vegetables (broccoli and collard greens)

Vitamin D helps your body absorb calcium. The recommendation for vitamin D is 200-600 iu daily.(A cup of milk contains 100 iu. A multivitamin contains 400 iu of vitamin D). Too much vitamin D can be toxic.

Exercise regularly. Exercise can help you minimize bone loss while providing many additional health benefits. Weight bearing exercises such as walking, jogging, hiking, climbing stairs, dancing, treadmill exercises, and weight lifting are probably best. Osteoporosis Diagnosis

Medical history and physical examination, X-rays, bone densitometry and specialized laboratory tests. additional tests to rule out the possibility of other diseases that can cause bone loss, including osteomalacia (a vitamin D deficiency) or hyperparathyroidism (overactivity of the parathyroid glands).

Bone densitometry safe, painless X-ray technique that compares your bone density to the peak bone density that someone of your same sex and ethnicity should have reached at about age 20 to 25, when it is at it's highest.

Treatment

Exercise and nutrition therapy

Estrogen replacement therapy (ERT) recommended for women at high risk for osteoporosis to prevent bone loss and reduce fracture risk. Hormones also prevent heart disease, improve cognitive functioning and improve urinary function. ERT is not without some risk, including enhanced risk of breast cancer.

Anti-estrogens known as SERMs. increase bone mass, decrease the risk of spine fractures and lower the risk of breast cancer.

Calcitonin A nasal spray form of this medication increases bone mass, limits spine fractures and may offer some pain relief.

Bisphosphonates, including Alendronate, markedly increase bone mass and prevent both spine and hip fractures.