

Osteoporosis Treatment

Adequate intake of Vitamin D and calcium

The National Osteoporosis Foundation advises all individuals to obtain an adequate intake of dietary calcium (at least 1200 mg per day, including supplements if necessary) and vitamin D (400 to 800 IU per day for individuals at risk of deficiency). An adequate intake of calcium is necessary for the acquisition of peak bone mass and maintenance of bone health.

The skeleton contains 99% of the body's calcium stores. When the exogenous supply of calcium is inadequate, bone calcium is resorbed from the skeleton to maintain serum calcium at a constant level. Controlled clinical trials have demonstrated that the combination of supplemental calcium and vitamin D can reduce the risk of fracture. Providing adequate daily calcium and vitamin D is a safe and inexpensive way to help reduce fracture risk.

Regular weight-bearing exercise

A regular program of weight-bearing and muscle-strengthening exercises is advised to reduce the risk of falls and fractures. Among its many health benefits, weight-bearing and muscle-strengthening exercise can improve agility, strength, and balance, which may reduce the risk of falls. In addition, weight-bearing exercise has been shown to increase bone density. Weight-bearing exercise (in which bones and muscles work against gravity as the feet and legs bear the body's weight) includes walking, jogging, Tai-Chi, stair climbing, dancing, and tennis. Muscle strengthening includes weight lifting and other resistive exercises. Before an individual with osteoporosis initiates a new vigorous exercise program, such as osteoporosis rehabilitation or weight lifting, an evaluation by a physician and physical therapist is recommended.

Avoidance of tobacco use and excessive alcohol intake

All patients at risk of osteoporosis should avoid tobacco smoking. The use of tobacco products is detrimental to the skeleton as well as to overall health. Moderate alcohol intake has no known negative effect on bone and may even be associated with slightly higher bone density and lower risk of fracture in postmenopausal women. However, excessive alcohol intake is detrimental to bone health and requires treatment when identified.

Pharmacologic therapy

The FDA has approved several medications for the prevention and/or treatment of osteoporosis. Generally speaking, pharmacologic therapy is initiated in patients with a bone mineral density (BMD) T-score below -1.5. These results are available from your bone densitometry (DEXA) scan.

Fosamax and Actonel are two common medications prescribed for osteoporosis. Fosamax reduces the incidence of spine, hip and wrist fractures by about 50% over 3 years. Actonel reduces the incidence of spine fractures by 41-49% and non-spine fractures by 36% over 3 years in patients with a prior spine fracture. Clinical experience suggests that some patients may experience upper gastrointestinal disorders such as dysphagia, esophagitis, and esophageal or gastric ulcer with these medications. Fosamax and Actonel must be taken on an empty stomach, first thing in the morning, with 8 ounces of water (no other liquid), at least 30 minutes before eating or drinking. Patients should remain upright (sitting or standing) during this interval as well.