

OSTEOPOROSIS

What is Osteoporosis?

Osteoporosis is the continuing thinning and loss of density in bones (bone mass), which makes bones more brittle, fragile, and likely to break after minor trauma. Loss of height and back pain are common. Women are at special risk for osteoporosis after their menstrual periods end (menopause), because quicker bone loss occurs after reduced production of the hormone estrogen. Estrogen blocks a protein that weakens bones. Osteoporosis is a silent disease, and it may not be evident until a bone breaks.

What Causes Osteoporosis?

Normal bone formation needs the minerals calcium and phosphate. If the body does not get enough calcium from the diet, bone production and bone tissues may suffer. The main causes of osteoporosis include aging, which leads to a drop in estrogen in women at menopause and a drop in testosterone (a male hormone) in men. Other causes are being underweight, lifestyle habits (being sedentary or inactive), alcohol use, cigarette smoking, eating disorders, taking certain drugs, some chronic diseases, and long-term bed rest or immobilization.

What Are the Symptoms of Osteoporosis?

No symptoms may be obvious early in the disease, but in time, low back and neck pain, stooped posture, and gradual loss of height may be seen. In other cases the first sign is a fracture (rib, wrists, or hips). Bones (vertebrae) in the spine may collapse (become flattened or compressed) and break, which is the most common fracture. Hip fracture can cause the greatest disability.

How Is Osteoporosis Diagnosed?

The physician will take a medical history and do a physical examination to look for age-related signs of a deformed spine. Laboratory test can measure calcium and vitamin D levels. An x-ray examination called DEXA scan can measure bone density at important places, such as the spine and the hip. Screening for osteoporosis may be recommended for all women after menopause and for men with risk factors such as long-term use of corticosteroids such as prednisone, which predispose to osteoporosis.

How Is Osteoporosis Treated?

Lifestyle changes may help reduce fracture risk. Such changes include doing regular weight-bearing and muscle-strengthening exercises, stopping smoking, limiting alcohol intake, and getting enough calcium and vitamin D in the diet. Calcium supplements may increase calcium intake, with vitamin D used to help the body absorb calcium. Treatments focus on slowing down or stopping bone loss and on preventing bone fractures by minimizing the risk of falls. Different drugs, including bisphosphonates such as alendronate and adequate supplementation of calcium and vitamin D are used as well.

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DOs and DON'Ts in Managing Osteoporosis:

- **DO** regular weight-bearing and muscle-strengthening exercise as suggested by your doctor.
- **DO** make sure you get enough calcium and vitamin D. Eat a healthy diet that is rich in calcium-containing foods, such as dairy products, fish, beans, and green leafy vegetables.
- **DO** take your medicines as prescribed.
- **DO** discuss screening for osteoporosis with your doctor.
- **DON'T** smoke.
- **DON'T** drink alcohol in excess.

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