

Osteoporosis



What is osteoporosis?

Osteoporosis means “porous bones.” It is a condition where the skeleton becomes fragile and results in broken bones under normal use. Osteoporosis is a “silent” condition that happens slowly over years. The rate of bone loss (“resorption”) exceeds the rate of new bone formation (“accretion”). Many times neither a person nor a doctor is aware of weakened bones until one breaks unexpectedly.

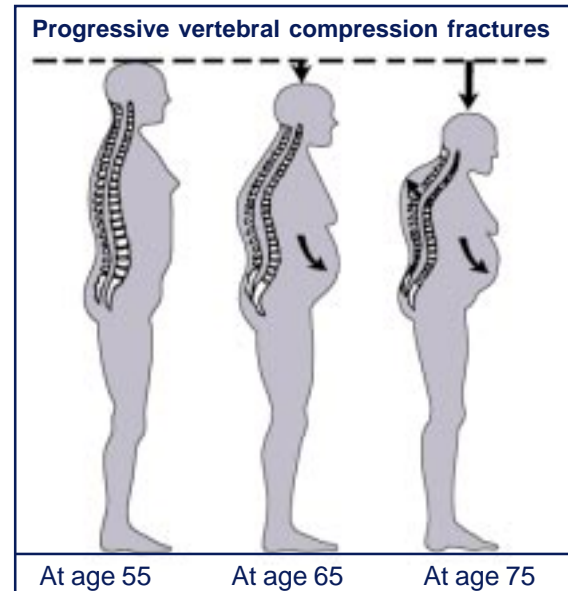
What are the symptoms of osteoporosis?

Because of mineral loss, osteoporosis can cause progressive breaks in a person’s back. This causes a person to lose height and get shorter and shorter. This spinal compression causes a gradual decrease in height due to forward bending of the upper spine. This eventually results in a painful, stooped back, commonly referred to as a “dowager’s hump.” And, loss of height can also result in a “pot belly” or a prominent abdomen even with no increase in weight.

What are the risk factors for osteoporosis you can’t control?

Unchangeable risk factors are:

- gender: being female; women are five times more likely to develop osteoporosis than men.
- lack of exercise: bedridden people lose bone faster than people who exercise regularly
- having a thin, small-boned frame
- family history of older family members with broken bones or stooped posture, especially women, which suggests osteoporosis
- history of disordered eating that may have contributed to a loss of regular menstrual cycles
- an early menopause in women before age 45 due to estrogen deficiency, either naturally or resulting from surgical removal of the ovaries and not treated with hormone replacement therapy
- race: Caucasian and Asian women are at highest risk while African and Hispanic women are at lower risk
- prolonged use of some medications such as glucocorticoids (prednisone) used as an anti-inflammatory to treat asthma or arthritis, excessive thyroid hormone, and some anti-seizure medications; and antacids that contain aluminum
- age: the risk of osteoporosis increases with age low testosterone level (in men) not treated with hormone therapy



Those listed above are risk factors you can’t control. Are there other risk factors that you can control?

Yes, you can control these risk factors with lifestyle changes. Here are some suggestions:

- get foods that are rich in calcium and vitamin D
- don’t smoke or quit smoking
- if you drink alcohol, do so in moderation
- get regular weight bearing and resistance exercise
- avoid excess protein intake
- avoid extreme dieting that can lead to loss of regular menstrual cycles
- avoid excessive soda pop intake which contains phosphoric acid.

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What's so bad about having osteoporosis?

Having osteoporosis can steal the “good life.” The simplest things can cause broken bones: sneezing, bending to pick up something, getting into the car or stepping off the curb. Hip fractures, which are one of the most common broken bones, can lead to permanent disability, loss of independence, or even death. Death rates from a broken hip range from 20 to 50 per cent during the first year — so treatment is aggressive with increased physical rehabilitation and calcium is heavily promoted. Having a frail body can result in chronic pain and constant anxiety.

How is osteoporosis diagnosed?

Routine x-rays can't detect osteoporosis until it's quite advanced. However, noninvasive, painless bone density tests are useful for confirming a diagnosis of osteoporosis. Different parts of the skeleton may be measured: most commonly the wrist, hip and spinal vertebrae since these are the sites for the majority of fractures due to osteoporosis.

The FDA has approved several devices that use various methods to estimate bone density. Doctors consider a patient's medical history and risk factors in deciding who should have a bone density test. A simple, biochemical test performed on a urine sample can detect a specific component of bone breakdown called NTx. The NTx test, marketed as Osteomark, can help doctors monitor treatment and identify fast losers of bone for more aggressive treatment. But, this test may not be used to diagnose osteoporosis.

What can you do to prevent osteoporosis?

Osteoporosis can't be prevented outright. However, the onset of this condition can be delayed and the severity reduced. Calcium intake is critical in childhood as well as young adulthood. Calcium can't build bone by itself; vitamin D is also required. And a lifelong habit of weight-bearing exercise such as walking or resistance exercise, also helps build and maintain strong bones.

Is there a cure for osteoporosis?

There is no cure for osteoporosis. However, the onset of this condition can be delayed. And, early intervention can prevent bone fractures.

What kinds of treatments are available for a person with osteoporosis?

Drug treatments?

For many years, the only choices for drug treatment of osteoporosis were the hormones estrogen and calcitonin.

Estrogen replacement therapy (ERT) is the best prevention for the drop in bone mass at menopause. Estrogen not only helps prevent osteoporosis, but also protects against heart disease. However, some 30–50% of

women are concerned about taking estrogen. These women may have risk factors which make them more likely to get cancer if they take estrogen. They now have other treatment options.

A non-hormonal treatment, Alendronate marketed as Fosamax, slows down bone breakdown by inhibiting osteoclast activity. It's been shown to increase bone mass as much as 8% and reduce fractures by 30–40%. Studies are still ongoing to determine its effectiveness and side effects.

Non-drug treatments or supplements?

Calcium and vitamin D supplements are an integral part of all treatments for osteoporosis. Calcium carbonate supplements are best (e.g., Oscal, Caltrate, Tums) absorbed in doses of 500 milligrams or less taken with meals. Calcium citrate (e.g., Citrical) can be taken between meals. In addition, diet and exercise are important not only for treatment but for prevention.

What foods can I eat to prevent osteoporosis?

Bone health requires a lot of nutrients and you're likely to get most of them in dairy products. For those concerned with lowering the fat in their diet, low fat and nonfat dairy products are still excellent sources of calcium and vitamin D. The best recommendation for overall good health includes a balanced and varied diet with foods adequate in calcium, protein, vitamins and minerals, and eating in moderation.

Other ways to get CALCIUM into your diet—especially if you don't consume dairy products—is to eat foods fortified with calcium, such as orange juice, or take calcium supplements.

Other good sources of calcium are:

- broccoli
- dark-green leafy vegetables like kale
- tofu, calcium fortified
- canned fish with bones
- fortified bread and cereal products

What if I have trouble digesting milk?

People who have trouble digesting milk products can look for products treated to reduce lactose such as “sweet acidophilus” milk or take an over-the-counter aid to reduce dietary lactose such as Lactaid. Some people with lactose intolerance can eat a small amount of dairy products with no digestive problems.

How much calcium do I need each day?

The recommended dietary reference intakes from the National Academy of Sciences for adults is 1,000 to 1,300 milligrams a day with hormone replacement and 1500 mg a day without hormone replacement. The recommendation is aimed at decreasing the risk of chronic disease through

nutrition. The National Osteoporosis Foundation recommends 1,500 milligrams a day for men over 65 (as well as for women over age 50)-the amount in five glasses of milk.

In addition for healthy bone, adults need 400 international units (IUs) of vitamin D daily, the amount in 1 quart of milk or 10 minutes of sun exposure, weight-bearing exercise, and good lifestyle habits. (Too much vitamin D can result in vitamin D toxicity and can cause health problems so more vitamin D is NOT better).

If you're unable to get enough calcium and vitamin D from the diet, consider taking calcium and vitamin D supplements.

What is the outlook for people with osteoporosis?

Persons diagnosed with osteoporosis should talk to their doctor. Some new medications have recently been approved that doctors may consider for treating their patients. They'll need to practice the dietary measures listed above. Also, consulting their doctor for a safe, individualized exercise program is recommended. High impact activities may be too risky. A good physical fitness program will reduce the risk of fractures by improving balance, muscle strength, and agility making falls less likely.

Where can I get more information on osteoporosis?

For more information, contact:

- National Osteoporosis Foundation
1150 17th St., N.W., Suite 500
Washington, DC 20036;
<http://www.nof.org>
or 1-202-223-2226
- National Institutes of Health
Osteoporosis and Related Bone Diseases
National Resource Center
<http://www.osteoporosis.nih.gov>
1-800-624-BONE.

- Arizona Osteoporosis Coalition
13236 N. 7th St, Suite #4
Phoenix, AZ 85022-5343
602-375-2224
<http://www.azoc.org>
- Women's Health Council
<http://www.chronicdisease.org>
- Strong Women Inside & Out
1-202-736-1656
- American Association of Retired Persons (AARP)
601 E St., N.W. Washington, DC 20049
(202) 434-2277
<http://www.aarp.org/>
- National Dairy Council, 10255 W. Higgins Rd., Suite 900, Rosemont, IL 60018-5616
(708) 803-2000 ext.220

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