



Osteoporosis & Men's Health

WHAT IS OSTEOPOROSIS?

Osteoporosis is a condition in which bones become weak and are more likely to fracture or break. In young adult life, both men and women form enough new bone to replace the bone that is naturally broken down by the body. Osteoporosis develops when your body cannot replace bone as fast as it is broken down.

DID YOU KNOW?

**Your bones change throughout your life.
Your body constantly breaks down
old bone and forms new bone to take its
place. This is called bone turnover.**

In the United States there are 2 million men with osteoporosis and 12 million who are at risk for the disease. About one in five men over age 50 will have a bone fracture that will seriously affect his quality of life, and may cause early death.

RISK FACTORS FOR OSTEOPOROSIS

- Caucasian race
- Age 65 and older
- Family history of osteoporosis
- Cigarette smoking
- Excessive alcohol use
- Low dietary calcium and vitamin D
- Sedentary lifestyle
- Thinness
- Hypogonadism (low testosterone), including that caused by treatment for prostate cancer
- Chronic diseases, including hormone imbalances such as too much thyroid hormone, kidney failure, and certain cancers
- Regular use of steroid medications such as prednisone and cortisone (used to treat inflammatory diseases such as asthma or rheumatoid arthritis)

HOW IS OSTEOPOROSIS DIAGNOSED?

Osteoporosis is a "silent" disease without clear signs and symptoms. You should be tested for osteoporosis if you

- Have risk factors
- Have had a fracture after age 50 or without an accident
- Have gotten shorter

The most common diagnostic tool is a bone mineral density (BMD) test such as dual-energy x-ray absorptiometry (DXA). Blood tests can also check for high levels of calcium or low levels of vitamin D in your blood, which may cause bones to become brittle. With early detection, men with mild to more severe bone loss can take steps to improve their bone health and reduce the risk of fractures.

HOW IS OSTEOPOROSIS PREVENTED AND TREATED?

To limit bone loss, you should

- Do weight-bearing exercises like walking, running, or playing sports
- Avoid smoking
- Avoid drinking too much alcohol (no more than two drinks per day)

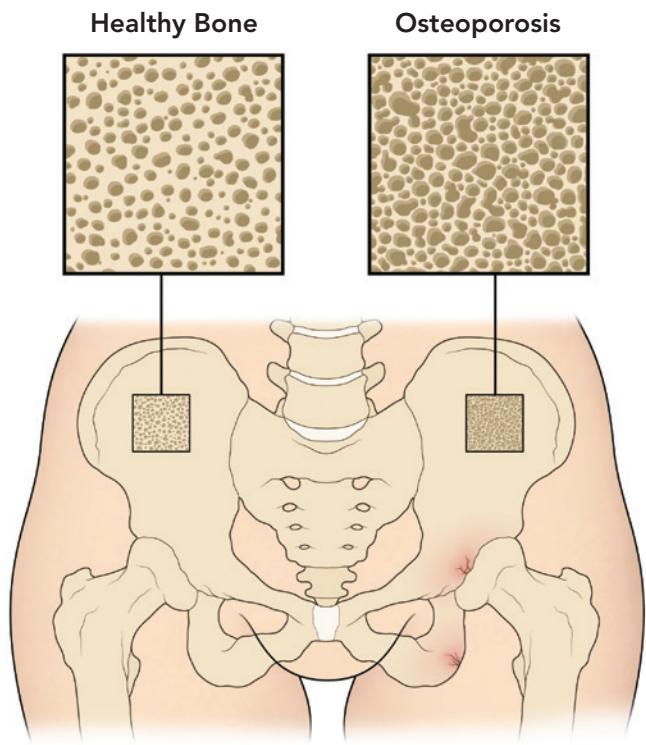
Your diet (with dietary supplements, if needed) should also include enough calcium and vitamin D, which varies depending on your age.

Men under 50:	1,000 mg calcium/day 400-800 IU vitamin D/day
Men over 50:	1,200 mg calcium/day 800-1,000 IU vitamin D/day

Source: National Osteoporosis Foundation

Along with lifestyle changes, you may need medication to stop bone loss and decrease the risk of fractures. The U.S. Food and Drug Administration has approved several drugs to treat osteoporosis in men:

- Alendronate (daily or weekly pills)
- Risedronate (daily, weekly, or monthly pills)
- Zoledronic acid (yearly intravenous treatment)



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January 2012, 4th Edition

The Hormone Health Network offers free, online resources based on the most advanced clinical and scientific knowledge from The Endocrine Society (www.endo-society.org). The Network's goal is to move patients from educated to engaged, from informed to active partners in their health care. This fact sheet is also available in Spanish at www.hormone.org/Spanish.

Osteoporosis and Men's Health Fact Sheet

These drugs slow down bone loss. A fourth drug, teriparatide (daily injection), stimulates the formation of new bone.

Teriparatide is only approved for men who are at high risk for fractures.

All these drugs seem to be effective in men with low sex hormone levels (hypogonadism). However, it is still unclear whether testosterone replacement therapy is useful to treat osteoporosis in men. Although small studies have shown that testosterone improves bone density (thickness and strength) in men with low sex hormone levels, there is no information about whether it reduces fracture risk.

Questions to ask your doctor:

- Am I at risk for osteoporosis?
- Do I need a bone mineral density test?
- Should I take calcium and vitamin D supplements?
- Do I need to take medication to protect myself from fractures?
- What are the benefits and risks of medication?
- Should I see a specialist like an endocrinologist?

RESOURCES

- Find-an-Endocrinologist: www.hormone.org or call 1-800-HORMONE (1-800-467-6663)
- Hormone Health Network information on osteoporosis and bone health: www.hormone.org/Osteoporosis/index.cfm
- National Osteoporosis Foundation: www.nof.org
- Osteoporosis and Related Bone Disease National Resource Center (NIH): www.osteo.org or call 1-800-624-BONE