

# Hip Fractures

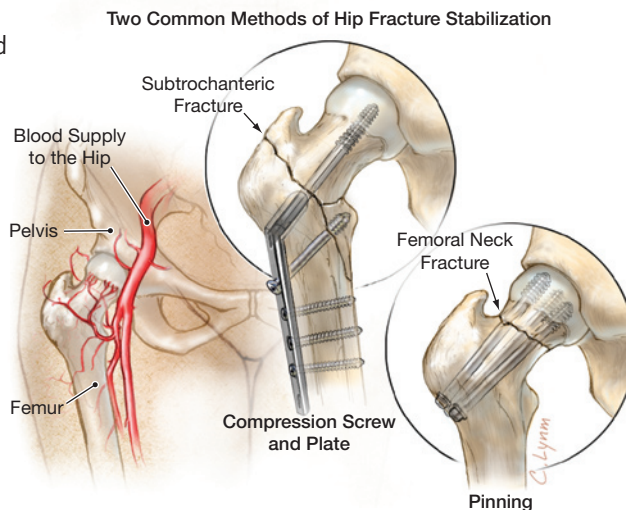
Bones are in a constant state of change—remodeling themselves to withstand the stress and strain of daily activity. In osteoporosis, natural bone activity becomes impaired, resulting in excessive bone loss. Bones become thin, weak, and more susceptible to fracture. As many as 10 million Americans have osteoporosis. Each year in the United States this condition contributes to approximately 329 000 hip fractures. A broken hip can cause discomfort, promote disability, and result in loss of independence. The loss of activity may likewise contribute to back pain and spinal deformity along with a loss of physical fitness and muscle strength. The November 28, 2007, issue of *JAMA* includes an article that examines various factors associated with a higher risk of osteoporotic fracture in older women and men.

## RISK FACTORS FOR OSTEOPOROSIS

- Advanced age—being older than age 65 increases the risk of fracture
- Female
- Postmenopausal (loss of estrogen production)
- White or Asian race
- Low bone mineral density (BMD)
- Inactive lifestyle
- History of fracture after age 54
- Smoking
- Certain medications (corticosteroids, anti-seizure drugs, antacids, certain cancer treatments, excessive thyroid hormone)
- Poor self-reported health
- Diabetes
- Family history of osteoporosis and history of hip fracture in parent

## TREATMENT

Hip fractures are treated with orthopedic techniques—surgery that corrects problems related to muscle, bones, and joints. Surgical options involve stabilizing the fracture site with hardware (metal plates, screws, or pins) or performing an **arthroplasty** (joint replacement).



## PREVENTIVE STEPS FOR BETTER BONE HEALTH

- Calcium and vitamin D—postmenopausal women need 1200 milligrams of calcium and at least 600 IU to 800 IU of vitamin D daily for better bone health.
- Weight-bearing exercise (such as walking or jogging) promotes formation of new bone and improves muscle mass. At least 30 minutes of weight-bearing exercise 5 days a week is recommended.
- Avoid smoking and heavy use of alcohol.
- Talk to your doctor to discuss options for hormone therapy and other medications.

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## BONE MINERAL DENSITY TESTS

X-rays do not accurately show bone loss unless the bone loss is severe. A **DEXA scan** is a specialized x-ray test for measuring bone mineral density (BMD) and is currently used to make the diagnosis of osteoporosis. Individuals with low bone mineral density are at high risk of fracture.

## FOR MORE INFORMATION

- American Academy of Orthopaedic Surgeons (AAOS) [www.orthoinfo.aaos.org](http://www.orthoinfo.aaos.org)
- National Institutes of Health Osteoporosis and Related Bone Diseases National Resource Center [www.osteo.org](http://www.osteo.org)

## INFORM YOURSELF

To find this and previous JAMA Patient Pages, go to the Patient page link on JAMA's Web site at [www.jama.com](http://www.jama.com). Many are available in English and Spanish. A Patient Page on osteoporosis and osteopenia was published in the December 6, 2006, issue, and one on bone fractures was published in the May 5, 2004, issue.

Sources: American Academy of Orthopaedic Surgeons, National Institute on Aging, National Institutes of Health

