



What You Should Know About Reducing Osteoporosis Fracture Risk

Osteoporosis is a skeletal disorder in which bone strength has weakened to the point where risk of fracture is high. Women undergo a rapid bone loss around the time of menopause due to hormonal changes. This bone loss slows down during the postmenopausal years, but does not stop completely. One in two women over age 50 will have an osteoporosis-related fracture in her lifetime.

How can I prevent fractures and osteoporosis?

There are several preventative steps women can take to avoid osteoporosis and resulting fractures or to keep osteoporosis from worsening. Recommendations include:

Eat a balanced diet high in fruits, vegetables, calcium, and vitamins.

Get enough calcium. The recommended daily intake is 1,200 mg for women ages 51 to 70 years. The two most often used calcium supplements contain either calcium carbonate or calcium citrate; calcium carbonate provides the highest amount of calcium.

Get enough vitamin D. The most recent daily recommendation, by the Institute of Medicine, is 600 IU for women ages 50 to 70 years. This amount of vitamin D from diet and/or supplements is sufficient for the majority of women in this age group in North America.

Avoid alcohol and smoking. Heavy alcohol intake (more than 7 drinks per week) increases the risk of falls and hip fracture, and women smokers tend to lose bone more rapidly and have lower bone mass than nonsmokers. Stopping smoking is one of the most important changes women can make to improve their health and decrease risk for disease.

Be physically active every day. Weight-bearing exercise (eg, fast walking, hiking, jogging, and weight training) may strengthen bones or slow the rate of bone loss that comes with aging. Balancing and muscle-strengthening exercises can reduce the risk of falling and fracture.

Eliminate safety hazards that may cause accidents. Falls cause nearly 90% of all osteoporotic fractures, so reducing this risk is an important bone-health strategy. Fall prevention measures include ample lighting, removing obstructions to walking, using nonskid rugs on floors, and placing mats and/or grab bars in showers.

Be aware of medication side effects. Some common medicines make bones weaker. These include a type of steroid drug called glucocorticoid used for arthritis and

asthma, some antiseizure drugs, certain sleeping pills, treatments for endometriosis, and some cancer drugs. An overactive thyroid gland or using too much thyroid hormone for an underactive thyroid can also be a problem. If you are taking these medicines, talk to your health care provider about what you can do to help protect your bones.

How do I know if I am likely to get a fracture?

There is a new Fracture Risk Assessment Tool (FRAX) for testing your fracture risk. FRAX was created by the World Health Organization to evaluate a patient's 10-year probability of hip and other fractures (spine, forearm, hip, or shoulder fracture). In the past, doctors could only estimate a 5-year fracture risk.

You can take the test online at www.shef.ac.uk/FRAX. Choose "Calculation Tool" and select the appropriate category for you. Please note that this tool is valid only for postmenopausal women age 40 and older who are not currently taking a prescription medication for osteoporosis. It includes questions about:

- Age
- Smoking
- Family history of hip fracture
- Glucocorticoid use (eg, prednisone)
- Arthritis
- Femoral neck bone mineral density (measures the part of the thigh bone that connects to the hip joint)

Taking multiple risk factors into account allows the FRAX formula to make a better estimate of your risk for fracture than previous methods.

Do I need to take medication for my bones?

Making certain changes to your lifestyle may be all that is needed if you are a postmenopausal woman at low risk for osteoporotic fracture. Adding osteoporosis medications is recommended if you have had a vertebral or hip fracture, have bone mineral density levels that indicate osteoporosis, or have FRAX scores that indicate a 20% risk of fracture in the next 10 years. You can talk to your health care provider about whether or not you fall into these categories and about the different medication options.

Where can I learn more?

For more information about menopause and osteoporosis, consult these educational resources developed by The North American Menopause Society: www.menopause.org/edumaterials.aspx. And visit the National Osteoporosis Foundation: www.nof.org.