

Fragility Fracture: Patient Teaching

You have had a fracture of your vertebral spine, wrist, hip, pelvis, forearm, humerus, shoulder, or rib after minimal trauma. This is a "fragility fracture." Fragility fractures are often the first symptom of osteoporosis. After such a fracture, your risk of another fracture is increased 2 to 5-fold. Fortunately, osteoporosis is treatable and there are things you can do to reduce your risk and improve the quality of your bones.

Modifiable Risk Factors: What You Can Change

- 1. Alcohol** - More than 2 drinks per day of any type of alcohol increases risk of an osteoporotic fracture by at least 40%. Reduce alcohol intake to 2 drinks or fewer per day.
- 2. Smoking** - History of smoking or current smoking increases risk of fracture. Quitting smoking will decrease your risk.
- 3. Poor Nutrition** - Calcium and protein are essential for building healthy bones. Low dietary calcium intake causes the body to remove calcium from bones to meet the body's calcium needs. Over time, this reduces the strength of bones. Dietary calcium intake should be 1200 mg per day. This can be met with 4 dairy servings, which also provide protein. Other sources include tofu, custard, pudding, kale, apricots, figs, sardines, macaroni and cheese, lasagna.
- 4. Vitamin D Deficiency** - Elderly people are especially at risk for vitamin D deficiency. The vast majority of patients with fragility fractures are vitamin D deficient. Vitamin D can improve muscle strength, help your nerves and muscles coordinate better, reduce your risk of falling, and increase calcium absorption from foods. Typical maintenance requirements for vitamin D are 1000 Units per day for those under age 65 and 2000 Units per day for those over age 65. This should be taken as a daily over the counter supplement of Vitamin D₃ (cholecalciferol.) If your vitamin D level is very low, your doctor may prescribe higher loading doses or another type of vitamin D. If you have a history of hypercalcemia, sarcoidosis, or you have lymphoma, you should not take vitamin D until you discuss this with your doctor.
- 5. Insufficient Exercise** - Women who sit for more than 9 hours a day are 50% more likely to fracture compared with those who sit for less than 6 hours per day. It's never too late to begin an exercise program. After a fracture, supervised exercise through physical therapy is recommended. Weight bearing exercise including walking, tai chi, and dancing is good for bone health. Resistance or strength training can also reduce fracture risk by strengthening supporting muscles and decreasing falls. Exercises for balance and posture are helpful and should be done regularly.
- 6. Frequent Falls** - low blood pressure upon standing, visual impairment, sedatives, dementia, neuromuscular dysfunction, and environmental hazards in and out of the home can contribute to falls. Minimize home clutter. Supportive, non-slip shoes, hand rails, and walking aids can help reduce falls.

Your Doctor Can Help: Follow-up with Your Primary Care Physician

Certain medications can contribute to the development of osteoporosis. Some of these include steroids, anti-seizure medications (Dilanton, Tegretol), thyroid hormones, proton-pump inhibitors (Prilosec, Protonix, Nexium), aromatase inhibitors (Arimidex, Aromasin, Femara), methotrexate, and antacids.

Medical conditions such as rheumatoid arthritis, celiac disease, hormone deficiency states, diabetes, hyperparathyroidism, and others can increase risk of osteoporosis.

Your physician may want to order a bone mineral density study, or DXA scan, to assess your bones and follow your progress in treatment.

Medication, such as bisphosphonates (Fosamax, Actonel), and others, may be prescribed to reduce your risk of another fracture. It is important that you maintain a healthy lifestyle and get adequate amounts of vitamin D, calcium, and protein to maintain your bone health during your treatment.

Your physician will receive a letter to notify him/her of your fracture. This letter contains general treatment recommendations for osteoporosis.

More information about osteoporosis can be found at:

www.nof.org

www.iofbonehealth.org

www.corvallisclinic.com./bonesforlife