



# Reducing the Risk of Bone Fractures for Osteoporosis

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## Cut your Risk of Osteoporosis Fractures

Osteoporosis results in poor structural integrity due to low bone density. The etiology and pathophysiology of the disease is well understood. Our bones go through a natural process of breaking down and rebuilding the living tissue throughout our life cycle. We reach a peak bone mass between the ages of 18 to 25. A combination of genetic predisposition and lifestyle factors dictate the quality and timing of when peak bone mass is achieved. If calcium is drawn out of the bone at a higher rate than what your body is able to deposit, the bones become thin and weak. This occurs naturally as we age but can occur at an earlier onset for many individuals for a variety of reasons depending on primary or secondary osteoporosis diagnosis. Your Bone Mineral Density (BMD) testing or dual x-ray absorptiometry (DXA) can assess the degree of bone density breakdown and shed light on the appropriate avenues of treatment.

You're definitely not alone with this condition as the National Institute of Health estimates 10 million Americans are affected. There are treatment approaches that can help strengthen your bones and help lower your risk of suffering a bone fracture.

### Medications

Depending on your bone density levels, you may benefit from treatment with medications. Often if the low bone mass is associated with other significant risk factors, you could be a candidate for certain medications. Many products on the market are promoted to reduce bone loss and increase density, thereby reducing fracture risk. The list is extensive and therefore outside of the scope of this paper. Please contact your health care provider for additional information and to learn if you are a candidate. The degree to which medications can directly impact your risk of fracture has not been demonstrated at this time; more research is needed in this field of study.

### Nutritional Supplements

The role of calcium and vitamin D in bone health is generally common knowledge. They work together to impact bone health. Taking individual supplements may be a beneficial part of your treatment plan to reduce the risk of fracture. Research studies have demonstrated that treating osteoporosis solely with supplementation, however, may not have a significant impact on reducing your risk of bone breakage/fracture.

It's also important to note that having too much of a good thing can be damaging. Ensuring you're meeting but not exceeding your body's needs is essential to good health as developing toxicities can lead to further complications unrelated to your bone health.

In addition to discussing supplementation with your doctor or nutritionist, adding the following foods to your diet will offer a healthy addition of calcium and vitamin D.

- Dairy products; such as milk, yogurt, and cheese.

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- Dark green leafy veggies; such as kale, broccoli, spinach, etc.
  - Foods "fortified" with calcium: tofu, breakfast cereals, and milk alternatives.
  - Vitamin D from sunlight, however there are a few foods that offer the vitamin: fatty fish, fish liver oils, beef liver, cheese, egg yolk, some mushrooms grown outside, and other fortified items.

## **Exercise**

The benefits of exercise are far reaching. Adding exercise to your daily routine leads to improved muscle and bone strength, as well as better balance, which can reduce your risk of falling. Research still had not identified exercise alone being an effective approach to eliminating fracture risk with osteoporosis. Though it remains an essential component of the treatment. Make sure to discuss a safe exercise regimen with your doctor or health professional.

These additional points of emphasis can help reduce the risk of a fall likely to result in fractures with osteoporosis: check your vision regularly, review your medication with your physician to avoid side effects of drowsiness or dizziness, exercise routine to improve coordination and balance. Consider reviewing the Center for Disease Control and Prevention's fall prevention checklist found at Check for Safety (A Home Fall Prevention Checklist for Older Adults).