# Osteoporosis: Complementary/Alternative Medicine

Usually without symptoms until severe backache or hip fracture occurs
Most common in postmenopausal white women
Spontaneous fractures of the hip and vertebra Decrease in height
Demineralization of spine and pelvis, as confirmed by X-ray techniques

QUICK REVIEW

• Osteoporosis involves both the mineral (inorganic) and non-mineral (organic matrix, composed primarily of protein) components of bone.
• Bone is dynamic living tissue that is constantly being broken down and rebuilt.
• Patients with low stomach acid secretion need a form of calcium that is already in a soluble and ionized state, such as calcium citrate, calcium lactate, or calcium gluconate.
• The concentration of calcium in the blood is strictly maintained within very narrow limits.
• Osteoporosis is best diagnosed by a procedure known as *bone densitometry.*

The Osteomark-NTX can be used to monitor the rate of bone loss and the success (or failure) of therapy.
The primary goals in the treatment and prevention of osteoporosis are to: - preserve adequate mineral mass
- prevent loss of the protein matrix and other structural components of bone
- assure optimal repair mechanisms to remodel damaged areas of bone • Coffee, alcohol, and smoking cause a *negative calcium balance* (more calcium being lost than taken in) and are associated with an increase risk of developing osteoporosis.
• Although nutritional factors are important, the best thing a person can do to strengthen their bones is to get physical activity.
Many general dietary factors have been suggested as a cause of osteoporosis, including: low calcium-high phosphorus intake, high-protein diet, high-acid-ash diet, high salt intake, and trace mineral deficiencies.
It appears that increased soft-drink consumption is a major factor that contributes to osteoporosis.
A deficiency of vitamin K leads to impaired mineralization of bone.
Boron deficiency may contribute greatly to osteoporosis as well as to menopausal symptoms.
Although calcium supplementation on its own does not completely halt the process of osteoporosis, it does slow the rate by at least thirty to fifty percent and offers significant protection against hip fracture. Avoid natural oyster-shell calcium, dolomite, and bone meal products because of the possibility of high lead content.
Calcium bound to citrate or other members of the Krebs cycle appears to be the best form for absorption. Magnesium supplementation may turn out to be as important as calcium supplementation in the prevention and treatment of osteoporosis.
A semi-synthetic isoflavonoid, similar in structure to soy isoflavonoids, has shown impressive results in a number of clinical studies of osteoporosis.

TREATMENT SUMMARY

Osteoporosis is a preventable illness if appropriate dietary and lifestyle measures are followed. Women of all ages, from the very young to the very old, should make building healthy and strong bones a

lifelong priority. This involves avoiding dietary and lifestyle practices that leach calcium from the bones, and choosing dietary and lifestyle factors that promote bone health.

Although most physicians highlight calcium intake, strong bones require much more than this important mineral. Bone is dynamic, living tissue that requires a constant supply of high-quality nutrients and regular stimulation (exercise).

The primary goal in the treatment of osteoporosis is prevention. In severe cases of osteoporosis, the recommendations given in this chapter should be used in conjunction with appropriate medical care, which may include the use of a variety of prescription drugs; follow the advice of your physician. Although drugs such as Fosamax and natural hormonal therapies such as calcitonin have side effects, the benefits (prevention of hip fracture) usually outweigh the risks in people who already have severe osteoporosis.[62,s3]

Diet

Follow the guidelines given in A HEALTHPROMOTING DIET. Be especially careful to limit dietary factors that promote calcium excretion, such as salt, sugar, protein, and soft drinks.

Nutritional Supplements

- High-potency multiple vitamin and mineral formula, according to the guidelines in the chapter SUPPLEMENTARY MEASURES
- Calcium: 800-1,200 mg per day • Vitamin D: 400 IU per day
- Magnesium: 400--800 mg per day
- Boron (as sodium tetrahydroborate): 3-5 mg per day