

BONE HEALTH

Approximately 25 million people in the United States are effected by osteoporosis. 40% of women and 13% of men may sustain a fracture over the age of 50, and over 1.3 million fractures annually are linked to osteoporosis.

INCREASED CALCIUM CONSUMPTION

Traditionally it was thought that increased calcium consumption, specifically from milk products, is recommended to help prevent osteoporosis risk. However, over the past 50 years the occurrence of hip fractures has risen significantly worldwide. Incidentally, new research suggests that there are actually more fractures in regions that have a higher consumption of milk products – namely the U.S., U.K., Canada, and mainland Europe

– than in those that don't, such as Africa and China.

The Nurses Study at Harvard University, which followed 78,000 nurses for more than 12 years, found that those who drink two or more glasses of milk per day have twice the risk of hip fracture than those who drink a glass a week or less.¹ There are several other large-scale studies that show that high calcium intake doubles the risk of hip fractures.²

SHOULD WE QUESTION WHAT WE'RE TOLD?

Perhaps! Our bones are composed of calcium phosphate salts (65%) for hardness and a collagen matrix (35%) for flexibility. If you remove all the calcium from a bone, leaving just the collagen, it will bend but not break when subjected to stress. If you remove the collagen, all that remains are the calcium salts, which will shatter when subjected to stress. This is why excess calcium may increase the risk of fracture.

Our bodies require many nutrients working together for good bone health: Magnesium, phosphorus, boron, copper, manganese, zinc, folic acid, and the vitamins C, D, K, B6. In addition, we need protein to build collagen and healthful fats for vitamin D absorption and protection against bone-destroying free radicals. The most easily absorbed source of vitamin D comes from the sun – we need 30 minutes or more of sunlight every day.

HOW CAN WE STRENGTHEN OUR BONES?

- Eat vegetables, especially leafy greens. Include five to seven portions daily.
- Prepare stocks made either with vegetables and a stick of kombu seaweed or with fish, chicken, or beef bones and a tablespoon of vinegar to help release minerals.
- Add sunflower and pumpkin seeds for minerals and natural fats.
- Choose whole grains in modest amounts for fiber and complex carbohydrates.
- Consume beans and naturally raised animal foods as a protein source.
- Opt for butter and oils like extra

virgin olive, flaxseed, and unrefined sesame for essential fatty acids.

- Exercise for at least 30 minutes every other day (or more often).

WHICH FOODS SHOULD WE AVOID FOR OPTIMUM BONE PRESERVATION?

Avoid refined sugars, honey, and white flour, including pasta, white bread, muffins, and baked flour desserts – these all cause an acid condition that leaches minerals from your bones.

Based on the studies mentioned above, avoiding milk products may also prevent bone fractures.



FOOTNOTES

1| Milk, dietary calcium, and bone fractures in women: A 12-year prospective study.

Feskanich, D., Willett, W., Stampfer, M., & Colditz, G. (1997). Milk, dietary calcium, and bone fractures in women: A 12-year prospective study. *Am J Public Health* 87(6), 992-997.

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2| Calcium intake and fracture risk: results from the study of osteoporotic fractures

Cumming, R., Cummings, S., Nevitt, M., Scott, J., Ensrud, K., Vogt, T., & Fox, K. (1997). Calcium intake and fracture risk: results from the study of osteoporotic fractures. *Am J Epidemiol* 145(10), 926-934.

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3| Vitamin D deficiency: the silent epidemic

Vitamin D deficiency: the silent epidemic. (n.d.) *The Free Library*. (2014).

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- Adapted from *Food and Our Bones* by Annemarie Colbin, PhD, CHES

Colbin, A. (1998). *Food and our bones: The natural way to prevent osteoporosis*. New York, NY: Plume.