

Bone Health and Osteoporosis Options

1. Anatomy of Bone
 - a. trabeculae
 - b. Cortex
 - c. Marrow
 - d. Bone is highly metabolically active
 - e. Osteoclastic and osteoblastic activity. Magnesium, Phosphorus, manganese, collagen etc.
2. Causes, Dangers and Risk factors of osteoporosis
 - a. White Female
 - b. Postmenopausal
 - c. Smoker
 - d. Inactive
 - e. Acid stopping medicine / prednisone
 - f. Estrogen dominated- because this limits testosterone's ability to get to its receptors
 - g. Excessive alcohol intake
 - h. Family history
 - i. Never giving birth
 - j. Anorexia
 - k. Lack of sunlight
3. Medicinal Options and their consequences
 - a. Fosamax, Boniva, Actonel, Reclast. They all stop osteoclast activity. Absolutely increase bone density. But not bone quality. Explain metabolism.
4. Prevention
 - a. Dietary- Reasonable amounts of dairy- In excess to acidifying thus the body buffers with calcium from bone
 - b. Refrain from soda intake. The high acidity in soda demineralizes bone. Phosphoric acid is the main leaching mineral.
 - c. Diet high in Dark green vegetables, reasonable dairy including milk (2%), cheese and yogurt (with fat)

- d. Natural sunlight to enhance vitamin D production
- e. Eggs- give vitamin D, cholesterol which is what vitamin D is based off of and protein
- f. Minimize caffeine to 300 mg a day or less
- g. CRUCIFEROUS VEGETABLES –broccoli, kale, brussel sprouts, cauliflower, onions- these provide body with nutrients for connective tissue that makes up bone.
- h. Exercise-
 - i. Weight bearing exercise i.e. walking, running, skiing, biking etc.
 - ii. Weight lifting resistance exercising.

5. Supplement options

- a. Daily Bone essentials is a great supplement for those who are osteoporotic See Link for description of all products
- b. Calcium Lactate and citrate are much more absorbable than calcium carbonate.
- c. Daily amount of calcium needed 1000-1200 mg. This is total between food and supplement.
- d. Your body cannot absorb more than 600 mg at a time
- e. Vitamin D is necessary for Calcium absorption and fat is needed for vitamin. D absorption. In other words skim milk is worthless.
- f. Vitamin D.
- g. Ostotropin

6. Recommendations for Standard Process products

- a. They are typically less because they are exceptionally absorbed.
- b. Less because they are complete nutrient base versus being just calcium.
- c. Daily essentials for 6 months to build bone structure 1-2 packets depending on severity of osteoporosis
- d. Can usually eliminate Vitamin D and Cruciferous Complete after regiment complete.

- e. I recommend 2 calcium lactate and 1-2 calcifood wafers / day. Supplies all nutrients needed.
- f. Ostotropin is a stimulant of osteoblastic activity. After initial therapy you can usually cut back to 1 day for maintenance.