

PREVENTING AND REVERSING OSTEOPOROSIS



Dr. Simon Yu, M.D. ▶ Prevention & Healing, Inc.
St. Louis, MO 63141
314-432-7802

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www.preventionandhealing.com
*Weaving Internal Medicine
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OSTEOPOROSIS

The epidemic incidence of osteoporosis disables over 20 million American women. Currently, one-third of postmenopausal women have osteoporosis. The United States flaunts the highest rate of osteoporosis-related fractures in the world.

Osteoporosis is defined pathologically as an absolute decrease in the amount of bone mass. The disease has led to 1.5 million fractures and costs the U.S. over 10 billion dollars every year. Fractures most commonly occur in the spine, distant part of the wrist, and hip. This crippling condition can be prevented and reversed with alternative treatments such as nutritional supplementation, weight-bearing exercise, and dietary modifications that use natural hormone replacement therapy.

The best time to prevent osteoporosis fractures is before they occur. Height loss, spinal deformity and fragility were once considered inevitable consequences of aging. Today, patient and doctor are challenged with the task of preventing, diagnosing and treating osteoporosis before it develops.



Osteoporosis afflicts women more than men because women have less bone mass and begin to lose bone mass far earlier than men. The most rapid bone loss occurs in the first five years after menopause, around age 45, when hormones (estrogen and progesterone) undergo a major decline in production. Virtually all women lose 5-10% of bone mass at an annual rate to 1-5% during short periods after menopause. Typically, men lose bone mass at a rate of 0.2-0.5% per year. Osteoporosis is most frequently characterized by back pain due to spinal compression and height loss.

Major risk factors—Older age, lifelong low calcium intake, and family history are significant risk factors for low bone

mass. Cigarette smoking, infrequent weight-bearing exercise, steroids, and excessive thyroid medication also promote bone loss. In women, the most common risk factor is hormone imbalance after menopause. Dietary factors also contribute to osteoporosis. Processed foods in the standard American diet (SAD)—fast foods, carbonated soda, alcohol, caffeine, and a glut of refined sugar, salt, and protein—lack nutritional value and may promote calcium loss.

High calcium intake alone does not prevent osteoporosis. Though Northern European women and Caucasian American women consume more calcium than Asian and African women, they still maintain the highest inci-

dence of osteoporosis.

Bone is a living tissue that requires adequate nutrition, beyond calcium, for proper growth. Bones need many minerals, notably phosphorus, magnesium, manganese, zinc, copper, boron, silicon. They also require other nutrients such as vitamin K, B-complexes, and vitamins A, C, E, and D.

Dr. Jonathan R. Lee labels progesterone deficiency, rather than estrogen deficiency, as the main hormonal factor associated with postmenopausal bone loss. Progesterone stimulates monthly ovulation. Progesterone also inspires bone formation by inciting osteoblast (bone rebuilding cells) to mediate mineralization of bone.

Before the onset of menopause, the body begins to decrease progesterone production. Bones slowly start to lose mass prior to

menopause. When menstruation stops, estrogen levels fall and osteoporosis accelerates.

Other risk factors—

Heavy metal toxicity such as lead, cadmium, tin, aluminum and mercury block the appropriate utilization of essential minerals and prevent sufficient building of bone mass.

Broad spectrum antibiotics

COPD/Emphysema

Fluoride

Genetics

Low Body Fat Mass

Accidental Falling

Malabsorption Syndromes

*Poor Eye Sight and
Depth Perception*

Severe Malnutrition

Immobilization

Diagnostic evaluation—

Diagnosis of osteoporosis, based on amount and quality of bone, is measured as bone mineral density (BMD). A half-inch loss from your average life height is a strong indication to measure bone mineral density. Bone mineral density is most accurately measured with DEXA (dual energy x-ray absorptiometry). DEXA has only a 1-2% error rate; standard x-rays detect osteoporosis after 25% bone loss. Other techniques include single energy x-ray absorptiometry, qualitative CT scan, and ultrasound.

Treatment plan for osteoporosis—

1. Back to the basics:

Osteoporosis prevention and reversibility require long-term therapy. Begin with sufficient hydration and nutritional therapy.



For more information, read my *Peak Performance Diet* handout.

2. Digestive Enzyme Therapy: Poor digestion is a starting point for all chronic disease—arthritis, osteoporosis, arteriosclerosis, diabetes, and cancer. Our fast-food society subsists on processed edibles with little nutritional value, rather than wholesome raw vegetables and fruits. The use of antacids such as Tums for calcium supplementation or H-2 blockers such as Tagamet, Zantac, and Pepsid should be gradually decreased. Calcium cannot be suitably digested in the form of antacid medications. You may take digestive enzymes. Enzyme therapy dosage is calculated to meet the specific needs of each individual.
3. Eliminate as Many Risk Factors as Possible:
Stop drinking carbonated and diet sodas.
Cut down on excessive alcohol consumption.
Stop smoking.
Avoid a sedentary lifestyle and begin moderate weight-bearing exercise.
Avoid accidental falling at home by using a safety night light.
Avoid steroid use for minor medical conditions.
4. Hair Mineral Analysis: Hair mineral analysis is a cost effective way to measure the mineral content of the body's tissue. Basic minerals such as calcium, magnesium, sodium and potassium regulate the thyroid and adrenal glands. The results of a hair mineral analysis also help predict a tendency for osteoporosis, arthritis, arteriosclerosis, as well as overall levels of energy and vitality. Understanding the relationship between these minerals in your tissues helps determine your physical and emotional condition. It also aids the design of a personalized nutritional program. Calcium supplementation without a mineral analysis is not recommended.
5. Drug Therapy Approved by FDA (excluding calcium and vitamin D):
 - Estrogen: Synthetic estrogen (such as premarin) may reduce bone resorption by activating bone cells to decrease bone turnover. However premarin, the derivative of urine from stall-confined horses, has unwelcome side effects such as fluid retention, tender breast, endometrial cancer, blood clot, hypertension, gall bladder problems, etc.
 - Calcitonin: Patients need to take a calcium supplement concurrently with this effective anti-resorptive agent, to prevent secondary parathyroid problems. Calcitonin's disadvantages are its high cost and limited injection or nasal spray applications. No oral supplements are available.
 - Bisphosphonates: These antiresorptive drugs that are absorbed to bone crystals can impair mineralization after long-term use. Therefore, they must

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be administered cyclically. Example: Fosamax, Didronel and Actonel.

- Selective estrogen receptor modulator: This therapy reduces resorption of bone and decreases overall bone turnover. Example: Evista.
- Other agents under development include: fluoride salt, parathyroid hormone, active form of vitamin D (calcitriol) and synthetic anabolic steroids.

6. Natural Hormone Replacement Therapy:

- **Natural progesterone:** Derived from wild yam, this plant-based hormone replacement for osteoporosis treatment is now considered one of the best alternatives. Unlike synthetic progesterone (progestin), natural progesterone does not induce side effects of water retention, hypertension, and other problems. Dr. Jonathan R. Lee reports that a treatment program combining diet, nutritional supplementation and natural progesterone proved nearly 100% successful in building bone mass. He cites an average increase in bone mass at 15%. Beware of some over-the-counter wild yam creams that don't contain active progesterone compounds, but only a precursor of progesterone.

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- **Natural estrogen:** Natural estrogen is a safe alternative to synthetic animal-Selective estrogen (premarin) from mare's urine. The ovaries produce three different estrogens—estradiol, estrone, and estriol—in different ratios. Hormone levels can be measured through blood, saliva or 24-hour urine output. I prefer to measure 24-hour urine collections to gauge hormone levels and treat with tri-estrogen and other hormones as indicated.
- **Testosterone:** Testosterone holds new promise for the prevention and reversibility of osteoporosis. I recommend measuring testosterone levels before the initiation of replacement therapy.

7. Herbal Medicine:

- Black cohosh
- Horsetail
- Oat straw
- Alfalfa
- Dong quai
- Sesame seeds

8. Other Modalities to Consider:

- Intravenous vitamins and mineral nutrition therapy
- Acupuncture
- Food allergy evaluation and rotation diet
- Chinese and Aryuvadic medicine
- Homeopathy



Summary—

Osteoporosis strategies have focused on early detection with an x-ray based bone densitometer (which I do not object to) and FDA-approved drug therapies (which I do object to, because of potential side effects) such as premarin, progestin, fosamax, evista, etc.

Osteoporosis is a complex disorder that exemplifies the flood of rapidly emerging diseases with prolific underlying causes. The open-minded exploration of a holistic, multidisciplinary approach, modeled to meet an individual's needs, is the best route to prevention and reversal. I use natural remedies to prevent, treat and reverse osteoporosis.