

Preventing & Treating Bone Loss

by Carolyn DeMarco, MD



Women who lift weights have shown significant gains in bone mass.

Osteoporosis is an enormous and costly health problem in the western world. In 1993, an estimated 1.8 million females in Canada were afflicted, costing at least \$465 million in acute health care and over \$800 million in long-term care. Fortunately, a holistic natural approach can be used to treat and prevent osteoporosis.

development of osteoporosis. Begin an exercise program as soon as possible, but certainly by age 30 to build peak bone mass.

Experts recommend brisk walking for a minimum of 45 minutes three times a week.

Aerobic exercise or dancing will accomplish the same thing. Ideally, arms as well as legs should be exercised to maintain strong bones.

Recent studies suggest that women

who exercise, even if they start well after menopause, can improve their bone mass.

Strength training: In a new book *Strong Women Stay Young* (Bantam, 1997), Tufts Center for Aging researcher Miriam Nelson describes her groundbreaking research on postmenopausal women who were not taking hormones or any other drug. She found that women who lifted weights for 40 minutes twice per week for one year showed small but significant gains in bone mass.

Diet: Menopause is one of the few times in a woman's life where it is advantageous to be 10 to 15 per cent

Photo: First Light

Osteoporosis: Strategies for Prevention

Weight-bearing exercise: A sedentary lifestyle can definitely contribute to the

overweight because the estrogen produced in fatty tissues has a protective effect against osteoporosis and other menopausal symptoms.

Getting enough calcium in your diet is important, but much more important is the total composition of your diet, your magnesium level, and how well you absorb calcium. For example, a diet high in caffeine, sugar, soft drinks, alcohol and dairy products can result in a calcium deficiency.

You don't need dairy to get sufficient calcium. Vegetarian dietary sources of calcium include deep green vegetables, tahini, dulse, kelp, lime-processed tortillas, tofu made with calcium sulphate, and mashed sunflower and sesame seeds.

High protein diets can cause a negative calcium balance by increasing calcium loss through the urine. In central Africa and Japan, where women have a low protein diet with only 300 mg of calcium per day, osteoporosis is uncommon. If you cut down on red meat and high-fat dairy products and move toward a diet of fresh fruits, vegetables, whole grains, chicken and fish, you will also be following current recommendations for the prevention of both heart disease and cancer.

Magnesium is also very important for bone health. Deficiency is widespread among both men and women.

Supplements for Healthy Bones

Women with high protein diets should supplement with 1,200 to 1,500 mg of calcium a day combined with 600 to 800 mg of magnesium. Those on pure vegetarian diets (no meat or dairy) should take about 1,000 mg of calcium and 500 to 600 mg of magnesium.

I prefer the powder or capsule forms. Liquid calcium-magnesium can also make up part of the daily requirement. Calcium-magnesium supplements are best taken at bedtime, when they help you get a better sleep. Silica may also be helpful as well as homeopathic calcium,

At least 400 to 800 IU of vitamin D should be taken along with the calcium. A good source of trace minerals including boron, zinc, manganese and

other minerals is also important for bone health.

Women with poor digestion may not absorb calcium well. Quality enzymes or hydrochloric acid tablets taken with each meal may substantially increase calcium absorption.

Determining Bone Loss

A bone scan is the most accurate way to assess whether you are losing bone. The radiation from a bone scan is about one-seventh that of a chest X-ray. If you feel you are at risk for bone loss, or are trying to decide about hormone replacement therapy (HRT), a bone scan may aid in your decision. If you are going to take HRT, there is no need for a bone scan.

A risk factor chart may help predict women who are at high risk for bone loss (see my book *Take Charge of Your Body: Women's Health Advisor*).

Ultrasound of the heel appears to offer a low-cost, radiation-free alternative method to assess bone mass. Studies to date have shown that it is comparable to bone scans in predicting fracture risk. A large Canadian study is underway.

The rate of bone loss in the first decade after menopause varies from less than one per cent in slow losers to more than five per cent per year in fast losers. Urine tests are now available which measure changes in bone turnover and may be able to identify a fast loser. However, not all fast losers will develop osteoporosis and not all slow losers will be spared.

Many holistic practitioners are finding these urine tests very useful to monitor natural hormone therapies. The tests are available through Great Smokies Diagnostic Labs at 1-800-522-4762 or 1-800-99-OSTEX.

Irregular Periods A Risk Factor

Dr. Jerilynn Prior, a Vancouver endocrinologist and University of British Columbia researcher, has pointed out

that women with a history of late onset of the first period and irregular periods may be at risk for fracture by the time they reach menopause. This risk can occur even if a woman is having regular periods but is not ovulating, which happens more often as you approach menopause.

If you want to know whether you are ovulating, you can check your cervical mucous and basal temperature and observe your symptoms (see my book for further details),

Estrogen and Bone Health

Currently, estrogen is being promoted as the most important hormone to reduce bone loss. It can prevent bone loss in menopausal women and reduce the incidence of fractures by 50 per cent. However, estrogen alone does not appear to increase bone mass.

Once begun, many doctors now



Experts recommend brisk walking for at least 45 minutes three times a week.

recommend that estrogen therapy be continued for at least eight to 10 years. Stopping the therapy even after four years of treatment, may cause a rapid acceleration of bone loss. Long-term side effects of estrogen therapy include an elevated risk of cancer, gall bladder disease, and other potentially serious health problems.

Natural estrogen such as the triple estrogen products containing 80 per cent estriol, 20 per cent estrone and 20 per cent estradiol may well protect bone, although no research has been done to date.

A new product has been used in Europe for over 40 years. Known as Remifemin is extracted from the herb black cohosh. It relieves menopausal symptoms and has an estrogenic effect on tissues. Remifemin should be combined with natural progesterone. Again, there is no evidence yet that it will protect bone but clinical response has been good.

The Role of progesterone

Recent evidence from Drs. Jerilynn Prior and John Lee indicate that progesterone, not estrogen, may be the most positive hormone for the bones. (Dr. Lee is the author of *What Your Doctor May Not Tell You About Menopause, The Breakthrough Book on Natural Progesterone*, Warner, 1996.)

In many studies on the effect of estrogen on bone loss, progesterone was given as well. Therefore, it is not possible to know which hormone was responsible for bone improvement or how the two hormones interact.

"Natural progesterone," explains Dr. Lee, "...declines to a lower rate than estrogen does with menopause, and it is the key hormone in causing these bones to regain their normal activity for strength and long life."

Dr. Prior made a detailed study of 66 women (New England Journal of Medicine,

November 1, 1990). Twenty-nine per cent of participants were not ovulating even though they were having regular periods. These women had low serum progesterone levels and were losing two per cent of bone annually. Dr. Prior found she could reverse their bone loss by giving 10 mg of Provera (a synthetic progesterone) daily for 10 days a month.

Many users of Provera report troublesome side effects. On the other hand, natural progesterone, which is identical to the body's own progesterone, has few side effects except drowsiness.

According to a report published in the *Lancet* (November 24, 1990), of 100 women applying a natural progesterone cream to their skin for 12 to 14 days a month, Dr. Lee documented bone scan increases in bone density over three years ranging as high as 22 per cent. The amount of bone increase was proportional to the bone loss before treatment. This means that women with the lowest bone density before treatment gained the most bone during treatment.

The product used by Dr. Lee contains 900 mg of progesterone per two-ounce jar and must be applied to the skin for 12 to 14 days a month.

Compounding pharmacists can also make up 3 to 6 per cent natural progesterone skin creams or provide natural progesterone in the form of pills or vaginal suppositories. In Canada, an oral form of natural progesterone known as Prometrium is also widely available by prescription.

A confusing number of wild yam creams are on the market all claiming to contain natural progesterone. Analysis has shown the actual content ranges from 2 mg to 900 mg. To obtain a list of the natural progesterone content of most wild yam creams, call Aeron Life Cycle at 1-800-631-7900.

So far there has been no further research into natural progesterone and bone loss. Usually, natural progesterone skin cream is part of a comprehensive program of vitamins, minerals, diet and exercise.

Drug Treatments

Various drugs are also used to treat osteoporosis. These include etidronate disodium (Didrocal) and alendronate (Fosamax). Well designed studies of the latter show a decreased fracture rate, increased bone mass and normal bone quality. Ask your doctor for more information about these treatments.

The adrenal hormone dehydroepiandrosterone (DHEA) may be beneficial both for preventing and treating osteoporosis. In the body, DHEA can be converted into estrogen or testosterone, both helpful hormones for the bones. However, use of DHEA should be monitored through hormonal blood tests or salivary tests by a practitioner.

Dr. Alan Gaby, author of the highly recommended book *Preventing and Reversing Osteoporosis* (Prima, 1995), stresses a comprehensive holistic program that includes diet, lifestyle, a broad range of nutritional supplements, natural hormone therapy, and avoidance of certain environmental toxins. He believes, as I do, that this approach is heralding a new area in the treatment and prevention of osteoporosis, one that truly offers hope.

Since 1972, Dr. Carolyn DeMarco has specialized in women's health. She has been a pioneer in natural childbirth and in raising public awareness about the overuse of drugs and surgery in women's health care.

Dr. DeMarco is the author of the recently revised book *Take Charge of Your Body: Women's Health Advisor*, which is available from the HEALTH NATURALLY subscription department (to order, see "Book Mart" on page 45) or by calling 1-800-387-4761.