

Boosting Bone Density Naturally

By Dr. Zoltan P. Rona, M.D., M.Sc.

Horrorific Statistics

The numbers are staggering. Osteoporosis (porous or demineralized bones) affects over 200 million women worldwide. One in every three women and one in every five men over the age of 50 has osteoporosis. The main danger of osteoporosis is fractures. In fact, there is an osteoporotic fracture estimated to occur every 3 seconds and a fracture of one of the vertebrae will occur every 22 seconds. Forearm, humerus, hip and spinal bones are the most common fractures.

Despite a greater awareness of the dangers of osteoporosis by the public and a much higher rate of drugs being prescribed for the condition by the medical profession, between 1990 and 2000, there was a 25% increase in hip fractures worldwide. This occurred largely in those aged 75-79 for hip fractures but between the ages of 50-59 for all other fractures. The worldwide incidence of hip fracture is projected to increase by 310% in men and 240% in women by the year 2050.

Osteoporosis has been defined by the World Health Organization (WHO) as being 2.5 or more standard deviations below the bone density of a young adult. Osteopenia, a milder form of frank osteoporosis (between 1 and 2.5 standard deviations below the bone density of a young adult), is not visible on a regular x-ray but can be detected by a special type of x-ray that measures bone density.

Medical Treatment Lunacy

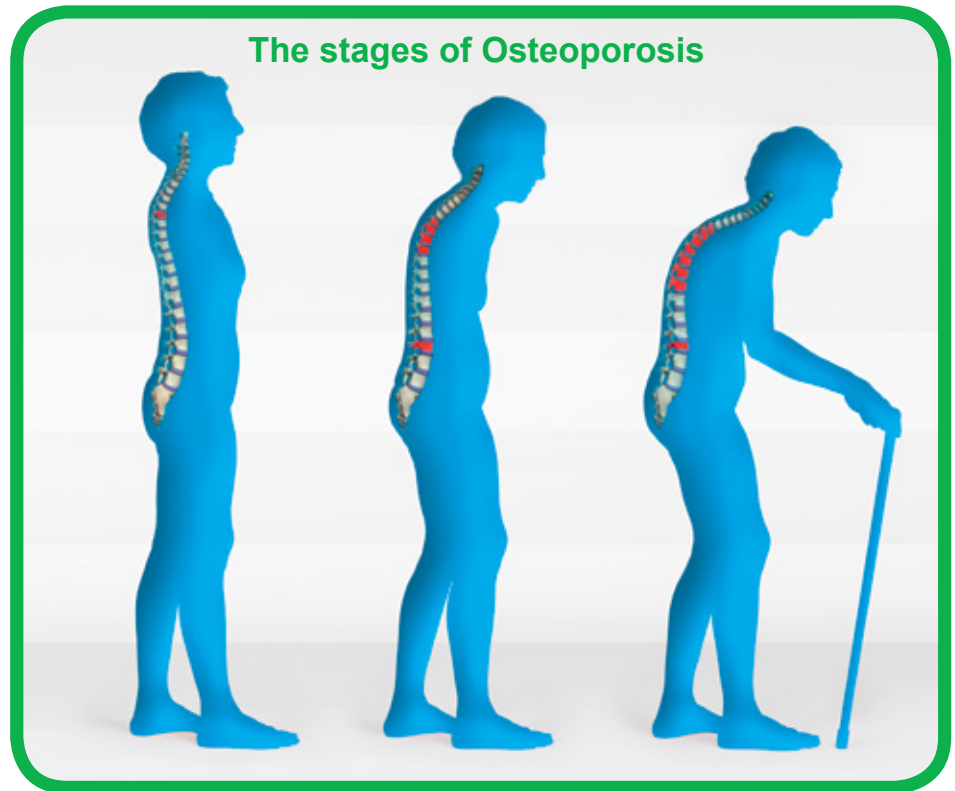
In December, 2008, the New England Journal of Medicine published a U.S. Food and Drug Administration report suggesting a possible link between taking a popular osteoporosis drug and the development of esophageal cancer. The FDA received 23 reports of esophageal cancer possibly linked to the drug between 1995 and 2008. Since doctors notoriously under-report drug side effects, the real figures may actually be much higher.

The manufacturer claims that their research does not indicate any association between the drug and esophageal cancer. Endocrinologists, internists and your friendly neighborhood GP agree and continue to prescribe it and other bisphosphonates. Can 50,000 Canadian doctors all be wrong?

It is estimated that about 30 million people in North America take one of the class of drugs known as bisphosphonates.

One undisputed fact is that bisphosphonates can cause esophagitis and gastrointestinal bleeding. Conceivably, in a patient with severe esophagitis, as in a condition known as Barrett's esophagus, the use of bisphosphonates could make the problem worse. Gastrointestinal bleeding and resulting anemia due to mucosal lining erosions caused by bisphosphonates are definitely possible.

Bisphosphonates have been linked to severe and incapacitating bone, joint and muscle pain. In 2008, the FDA warned



doctors that this is a possible source of intractable pain for many people using the drugs and may necessitate the use of dangerous analgesics. When people who suffer from this side effect stop using the bisphosphonates, the pain usually subsides. These are therefore drugs which should never be given to people suffering from any form of arthritis or fibromyalgia.

The April, 2008 edition of the Archives of Internal Medicine published a study that found that a patient taking bisphosphonates had an 86% greater risk of developing an irregular heartbeat (atrial fibrillation). Bisphosphonates have also been linked to an increased incidence of osteonecrosis of the jaw (the death of the jaw bone and subsequent disintegration of the jaw). Dentists are often puzzled (although they shouldn't be) when their patients on one of the bisphosphonates develops rotting and loose teeth.

The "bisphosphonates" may also cause serious eye inflammation leading to blurred vision, vision loss or blindness if left untreated. This side effect was first reported in the March 20, 2003 edition of the New England Journal of Medicine.

Google bisphosphonates and you are bound to come up with at least a dozen legal web sites inviting those who have been prescribed the drug to join lawsuits against both the drug companies that manufacture the bisphosphonates as well as the doctors who prescribe the drugs. Estimates of osteonecrosis of the jaw vary from 1 to 10% of all patients using the bisphosphonates. Some dentists have stopped treating patients taking the drug for fear of further complications.

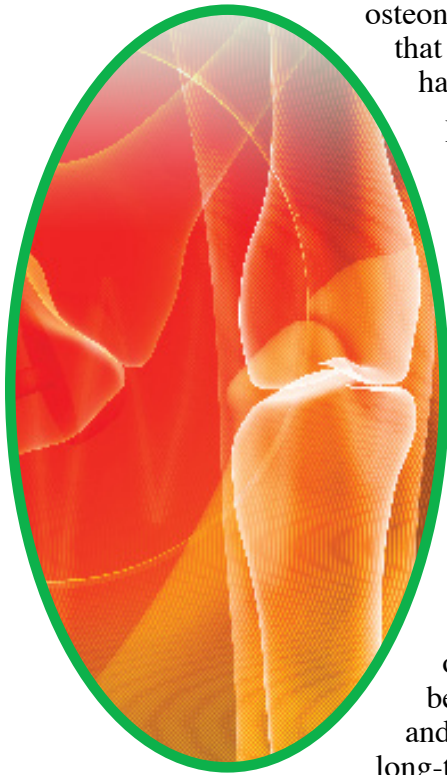
The drug remains in the bone for years after stopping it, so it is unknown how long the risk of osteonecrosis of the jaw persists. There is no known cure for the condition and it is likely that lawyers will be enriched as a result of this debilitating side effect. The drug maker has set aside \$48 million to defend itself against lawsuits.

How do these drugs work? The bisphosphonates basically poison the osteoclast cells in your bone. These are the cells responsible for getting rid of old, dead or weak bone cells. The osteoclasts are in balance with the osteoblasts that make new bone cells. Since the osteoclasts are killed off, old and sick bone cells are allowed to somehow survive and this is what causes the bones to look denser on x-rays. What the bisphosphonates do in essence is to create a skeleton of old, dying, decayed or sick cells. This type of bone looks denser on x-rays but is weaker and potentially hazardous to your health.

People who have been taking the bisphosphonates for over 5 years have increasingly been reporting a type of rare leg fracture that shears straight across the upper thighbone after little or no trauma. That's not exactly something you would expect with a higher bone mineral density report. The typical history is unexplained leg pain after walking or standing for an extended period of time and an x-ray showing a fractured femur. The simple action of getting out of a car has been reported to cause the fracture. The study was reported in the July issue of the Journal of Orthopedic Trauma on 20 patients who developed the bizarre thigh fracture after being on bisphosphonates for an average of 6.9 years. In 2007, the Journal of Bone and Joint Surgery reported that 13 women with low trauma leg fractures had been on long-term bisphosphonate therapy. Yes, the bisphosphonates make the bones look denser on the x-rays but they also make them weaker and more brittle.

The bisphosphonates are in the same class of chemical compounds used to remove soap scum from your bathtub. Most soap contains bisphosphonates to prevent ring around the bathtub. They remove soap scum by basically dissolving dead skin cells that collect on the tub after taking a bath. If a substance is strong enough to dissolve skin cells, just imagine what it can do to your stomach when you swallow it. It is for this very same reason that the pharmacist will tell you not to lie down after taking any bisphosphonate. If you do, it's possible that the drug will erode the lining of your esophagus, stomach or duodenum.

Continued on inside pages...



Alternatives To The Bisphosphonates

The simplistic idea that you can reverse a chronic degenerative disease like osteoporosis with a bisphosphonate pill you take once a week is nothing short of lunacy. An effective reversal of osteoporosis must include changes in diet and lifestyle. The following gives you a good idea of what you can do to both prevent and treat osteoporosis without poisoning yourself.

Limit Your Risk Factors

While you can do nothing directly about your family history of osteoporosis, you can at least eliminate the majority of the following known risks of getting the disease:

- High sugar intake
- Cigarette smoking
- Excessive alcohol and caffeine intake
- High protein diets (encourage high mineral losses in the urine)
- Low calorie weight loss diets high milk and dairy product consumption
- Drinking exclusively distilled water
- Physical inactivity
- Excessive physical exercise
- Never having been pregnant
- Diuretics (water pills)
- Anti-seizure medications
- Anticoagulants (“blood thinners”)
- Antacid abuse, all anti-ulcer drugs
- Digestive disorders leading to trace mineral malabsorption
- Overactive endocrine glands (especially hyperthyroidism)
- Long-term use of prescription steroids like prednisone
- Numerous vitamin and mineral deficiencies

Do Regular Weight Bearing Exercise

If you don't move it, you lose it. Regardless of what prescription or natural remedies you are using to fight osteoporosis, there is nothing that can take the place of daily weight bearing exercise. Unless the bones are challenged to function, no amount of calcium, estrogen, or any other remedy for that matter, will make a difference in bone mineral density. In other words, use it or lose it. Brisk walking, using arm and ankle weights, sit ups, leg lifts and dozens of other exercises could be done with the help of a chiropractor, physio-therapist or personal trainer.



Modify Your Diet

As with all our body tissues, bone is sensitive to diet and lifestyle habits. The typical Western diet high in refined carbohydrate, animal protein and fat, canned and processed foods has been linked to a greater incidence of osteoporosis simply because such a diet is inadequate in a large number of nutrients. It is also excessively high in phosphorus, a mineral that, in large amounts, antagonizes calcium in the body. Interestingly enough, the foods most often recommended for healthy bones, milk and dairy products, are excessively high in phosphorus and may actually promote osteoporosis. In fact, the more dairy products consumed the worse the osteoporosis incidence. In areas of the world where dairy product consumption is the lowest, osteoporosis is virtually non-existent.

Avoid Sugar

Since refined sugar contains virtually no vitamins or minerals at all, it dilutes our nutrient intake, resulting in an across-the-board 19% reduction in all vitamins and minerals in our diet. Thus, we are getting less magnesium, folic acid, vitamin B6, zinc, copper, manganese, and other nutrients that play a role in maintaining healthy bones.

Avoid Refined Carbohydrates

When whole wheat is refined to white flour, many vitamins and minerals are lost: vitamin B6 (72% loss), folic acid (67%), calcium (60%), magnesium (85%), manganese (86%), copper (68%), zinc (78%). Since grains make up about 30% of the average diet, consumption of refined grains depletes the total daily intake of micronutrients (vitamins and minerals).

Avoid Caffeine

Caffeine in coffee, tea, chocolate, soft drinks, guarana, yerba mate, analgesics has a diuretic (water and mineral loss) effect - Causes mineral loss from the body leading to lower bone mineral density.

Avoid Alcohol

Another diuretic, excess alcohol causes abnormal mineral losses.

Eat Less Animal Protein

- Excessive dietary protein may promote bone loss.
- With increasing protein intake, the urinary excretion of calcium also rises, because calcium is mobilized to buffer the acidic breakdown products of protein.
- In addition, the amino acid methionine is converted to a substance called homocysteine, which is also apparently capable of causing bone loss.



Supplement Your Diet

Several vitamin and mineral supplements can be helpful both in the prevention and reversal of osteoporosis.

Vitamin D is required to absorb calcium from the small intestine. Deficiency can come about when there is reduced exposure to sunlight, decreased dietary intake or a malabsorption problem of one kind or another. Supplementation of 5000 IU or more daily is recommended for both prevention and treatment.

The protein matrix upon which calcium crystallizes is called osteocalcin. Studies show that vitamin K is required by the body to make osteocalcin. Several other vitamins are important for bone health. These include vitamin A, folic acid, vitamin B6, vitamin B12 and vitamin C. A lack of these vitamins increases osteoporosis severity because they are required in numerous biochemical reactions in bone (connective) tissue. The same can be said for minerals such as magnesium, manganese, boron, strontium, silicon, zinc and copper. Silicon, for example, is found in high concentrations in growing bone. It strengthens connective tissue and may be crucial in osteoporosis prevention.

Boron supplementation raises serum estrogen and testosterone levels. One study demonstrated that boron supplementation produced estrogen blood levels identical to estrogen treated women whose diets were not supplemented with boron. Boron supplementation does not pose the same cancer-causing risks as synthetic estrogen replacement therapy (e.g. uterine or breast cancer). It is non-toxic. Unfortunately, many people are deficient in this mineral simply because of poor soil quality.

Use Herbal And Other Natural Alternatives to HRT

Consider panax ginseng as another source of naturally occurring estrogen (estriol). Not only does ginseng help control hot flashes, it may be a very valuable adjunct to the prevention and treatment of osteoporosis. Another natural way of getting estrogen is to use a black cohosh extract.

Vitex (chaste berry) is a very safe herb that can be supplemented to simulate what progesterone does naturally in the body while the Peruvian herb, maca can be used to boost the body's own DHEA levels. Using several herbs can enhance testosterone but velvet elk antler seems to be one of the most effective.

People over 65 usually have a hard time with protein digestion and trace mineral absorption because of low secretion of stomach hydrochloric acid. This can be confirmed by a comprehensive stool and digestive analysis and hair mineral

analysis. If stomach acid deficiency is the problem, appropriate digestive aids (e.g. stomach bitters, apple cider vinegar, citric acid, betaine and pepsin HCL, etc.) can be taken with most supplements based on the degree of hypoacidity.

Natural Hormones Are For More Severe Osteoporosis

The vast majority of people who suffer from osteoporosis can reverse the disease and all its symptoms using a weight bearing exercise program, a healthier diet and the natural supplements just discussed. For cases that do not respond to this approach either due to the presence of other diseases, the use of various drugs or a very poor digestive system, consider using a natural transdermal progesterone cream, estriol and adrenal hormones, especially DHEA and testosterone. Obviously, the use of these hormones is controversial, so my advice here would be to discuss the pros and cons with your doctor. There is an excellent discussion of the use of these hormones in Dr. Alan Gaby's book, Preventing and Reversing Osteoporosis as well as Dr. John Lee's What Your Doctor May not tell You About Menopause.

Conclusion

Women all have different needs for these nutrients in order to prevent or treat osteoporosis. It depends on your unique biochemical make-up, your activity and stress levels. For more detailed information on complementary medical therapies for osteoporosis reversal, see a natural health care practitioner. Whatever you do about the condition, do not use bisphosphonates. Not only will these drugs fail to deliver what they promise but they may also damage your health beyond repair.

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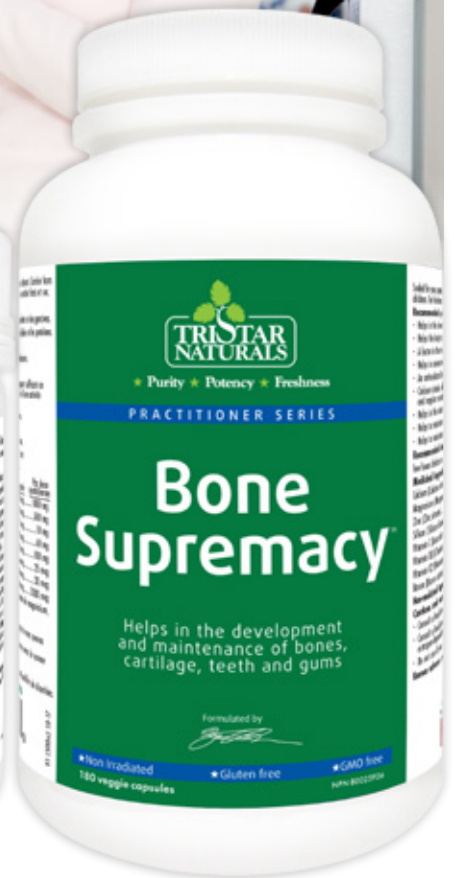


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