Osteoporosis Is Not Just A Calcium Deficiency

By Dr. Ramona Warren

Osteoporosis is a condition where bones become thin and porous, leading to decreased strength. The word “osteoporosis” is derived from Latin and literally means “porous bone.” You cannot feel the development of osteoporosis, which is why it is known as the “silent thief” since many are unaware their bones have lost both structure and density until a fracture happens. Osteoporosis causes 1.5 million fractures each year and is reaching epidemic status. In fact, fractures from osteoporosis are more common than heart attack, stroke and breast cancer combined. At least 1 in 2 women over 50 and 1 in 5 men will suffer from an osteoporotic fracture during their lifetime.

Bone is a living tissue and is constantly breaking down and rebuilding. This is a normal process necessary for healthy bones. When the body does not generate enough new bone to compensate for the natural breakdown of old bone, the result is a decrease in bone mass and density. Although many people think that osteoporosis is simply part of growing older, it is NOT a necessary part of aging. There are a variety of factors that contribute to osteoporosis and not all are age related.

The health of our bones begins in childhood. The National Institute of Health considers osteoporosis to be a pediatric disease with geriatric consequences. Thirty percent of our bone structure is developed in childhood and another 60 percent during puberty. We typically reach our height of bone density by the age of 30. The more bone mass we have when we are young, the better protection we will have from losing bone mass later in life.

Poor childhood nutrition is one of the main contributing factors to developing osteoporosis. The processed and refined foods heavily consumed by Americans, especially children, strip the body of many vital minerals and nutrients needed for healthy bone. It is estimated the average child consumes 64 ounces of soda or sports drinks (Powerade, Gatorade) a day. The average person’s grocery cart contains 85 to 90 percent processed food. Bones cannot grow and rebuild unless they have the proper nutrients.

The traditional test to scan for osteoporosis is the standard Bone Density Test or DEXA scan. This test, however, only assesses bone density, not the quality or strength of the bone. The Bone Density Test only provides information on the amount of bone that has already been lost.

The Bone Resorption Assessmentmeasures the rate of bone turnover. It’s helpful for determining how fast you are losing bone and if the treatment you are doing is effective at slowing down the rate of bone loss. Both tests are helpful. The Bone Density test will provide a “measuring stick” over the long term, while the Bone Resorption test can be done periodically to determine the success of your treatment.

If it is determined that you have osteoporosis or osteopenia (a condition of lower bone mass not as severe as osteoporosis), then calcium supplements will typically be recommended. The common belief is that osteoporosis is simply a calcium deficiency in the bones, however calcium is not the only mineral involved in building bone tissue. Other minerals, such as phosphorus, magnesium, manganese, copper, selenium and iodine, are integral to healthy bone structure. Taking high doses of calcium, especially the poorly absorbed calcium (calcium carbonate or calcium derived from oyster shells), creates nutritional imbalances within the body and can lead to other problems. Some studies have linked higher doses of calcium supplementation to an increased risk of cardiovascular disease and hip fractures.

While certain forms of more absorbable calcium (calcium citrate and calcium lactate) can be beneficial, several studies are showing that magnesium may be the most overlooked mineral when it comes to bone health. The key is to remember that supplements are supposed to **supplement** our diet. We should focus on getting our nutrients from our food first, rather than eating a poor diet and taking a handful of pills to try and get the proper nutrients.

Here is a list of steps you can take to lower your risk for osteoporosis.

1. Eat fresh foods. Dark green leafy vegetables such as Swiss chard, kale, bok choy and collard greens are rich in calcium, magnesium, vitamin K, boron, B vitamins, and essential fatty acids. Other nutrient-rich foods include fish, beans, nuts, seeds (sunflower, pumpkin), hummus and avocado. Lemons can also be beneficial since they have an alkalizing effect on the body and provide calcium, copper and vitamin C, all of which are important for bone maintenance.
2. Get moving! Being sedentary leads to bone loss. Studies show people active throughout their lives have a decreased risk of osteoporosis. Women in their 70s and 80s can increase bone density with weight-bearing exercise, so it is never too late to start moving. Light exercise such as walking, dancing or hiking can be beneficial. Even 5 to 8 minutes a day can help.
3. Stop smoking. Smoking decreases bone mass by reducing the blood supply to your bones. It also interferes with estrogen metabolism, reduces the absorption of minerals, and reduces the amount of vitamin D in the body.
4. Over the counter meds increase risk factors. Antacids and laxatives are particularly problematic because they interfere with the body’s absorption of nutrients.
5. Drink in moderation. Alcohol decreases bone mass because it destroys digestive ability and decreases the absorption of nutrients.
6. Electromagnetic field therapy. Use of electromagnetic field therapy is common in Europe and is becoming more popular in the United States. NASA has successfully used electromagnetic field therapy to help maintain the bone health of astronauts. Several studies show that pulsed electromagnetic field therapy (PEMF) is useful for the prevention of osteoporosis.

If you would like more information on Bone Resorption testing or on PEMF therapy, please email [pathwaysth@gmail.com](mailto:pathwaysth@gmail.com).