

Back Pain Part 4 - Osteoporosis

By Dr. Donald Hudson

Osteoporosis means “porous bone,” which causes the bones to become weak and brittle. This brittleness may evidence itself through fractures caused by even mild stresses like bending over, lifting a vacuum cleaner, or coughing. Consider how devastating it would be to get up in the morning and without warning break a rib when you bend over to pick up the morning newspaper.

Osteoporosis is a disease that can and does affect all people, young and old, male and female and all races. We have thought for years that this was a disease of women, but that is not so. It is estimated that about 8 million American women and 2 million men have osteoporosis. There are an additional 34 million Americans who have low bone density. It is estimated that there are between 50,000 and 100,000 American children between ages 4 and 10 who suffer with some variation of osteoporosis.

In the United States, osteoporosis causes more than 1.5 million fractures every year. These fractures are mostly in the spine, hip or wrist, although any bone can be affected. Osteoporosis has become a major public health threat for 55% of Americans age 55 or older. One in two women and one in four men over 50 will have an osteoporosis related fracture in their remaining lifetime. The national cost (hospitals and nursing homes) for osteoporotic and associated fractures was \$17 billion in 2001 (\$47 million each day) and is increasing at an alarming rate.

Osteoporosis is thought to be an old person’s disease, but it can strike at any age. The issue you must consider is: what is your risk? People who have a higher likelihood of developing osteoporosis have some of the following “risk factors”: a personal history of a fracture after age 50; current low bone mass; history of a fracture in a direct relative; being female; being thin and/or having a small frame; advancing age; a family history of osteoporosis; estrogen or testosterone deficiency; abnormal absence of menstrual periods; anorexia; low calcium intake; Vitamin D deficiency; long term use of corticosteroids and anticonvulsants; an inactive life style; current cigarette smoking; excessive use of alcohol; being both an American and Caucasian, or being Asian.

The average person has acquired about 98% of their skeletal bone mass by age 20. Osteoporosis prevention therefore must begin in childhood, and parents must work to ensure that their children are receiving appropriate nutrition. The best defense against osteoporosis in later life includes an adequate diet rich in calcium and vitamin D, routine weight bearing exercises, a healthy life style with no smoking or excessive alcohol use, bone density testing and medication when appropriate.

How dangerous are fractures that occur with osteoporotic patients? There is a 24% death rate for hip fractures for patients age 50 or older in the year following their fracture. A hip fracture patient loses a lot of mobility. One fourth of those who were walking before the injury will require long term care afterward and at six months only 15% will be able to walk across a room unaided.

Although there is no cure for osteoporosis, there are a number of medicines approved by the FDA for men and women to slow down or halt bone density loss. The best treatment is recognition and prevention. This includes recognizing any underlying medical conditions that affects bone health and trying to correct them. It is also helpful to change any unhealthy habits like smoking, excessive alcohol intake, and inactivity. You need to ensure a daily intake of calcium of 1000 mg/day to age 50, then increase it to 1200 mg/day after age 50. Also, you should watch your diet to be sure you have an

adequate vitamin D intake. Normally exposure to the sun for as little as 10 minutes daily will allow us to make enough vitamin D. If sun exposure is less than 10 minutes daily, then vitamin D supplements should be at least 400 IU, but not more than 800 IU, daily.

Weight bearing exercises, where bone and muscles work against gravity, help maintain and develop healthy bones. These include walking, jogging, racket sports, stair climbing, yoga, team sports, and weight lifting. Depending on the severity of osteoporosis, you might have to curtail twisting and impact activities, since these may aggravate the pain and potential for new fractures.

Currently, Calcitonin is an approved drug that slows or stops bone loss and may relieve the pain of fractures. The evidence suggests that Calcitonin will work equally well in men or women. Testosterone (male hormone) replacement will help stop bone loss in men with low testosterone levels.

The establishment of a base line bone density is important for all ages, young or over fifty, male or female, Caucasian or other ethnic descent. The clinic has the machine for this test. The test does not hurt, it does not require needles or medicines, it is very simple and requires only a small amount of time. The clinic feels so strongly that this is valuable information for all of our patients that we have priced it just above cost so everyone can afford it. I would encourage you to make an appointment at the clinic for this test and consult with a practitioner about what you might need to do to prevent this serious disease process.