# **Understanding Osteoporosis**



steoporosis is a disease of the bones, in which the bones become brittle and porous and break easily, sometimes from only a minor injury.

Eight million American women and 2 million American men have osteoporosis, and risk traverses age, gender and ethnic background.

Osteoporosis is on the rise today, for a number of reasons. For one thing, we are living longer. Although all ages are at risk, aging is a factor in the development of the disease. Additionally, our obsession with dieting, as well as poor dietary habits, contribute to our eliminating nutritious, calcium-rich foods to save on calories. Meanwhile, our sedentary lifestyles and lack of regular exercise further contribute toward porous, frail bones.

Today, we know more about osteoporosis, its causes and how to diagnosis it. Although there is no cure, there are treatments and interventions that prevent the onset of the disease and keep our bones healthy.

## SYMPTOMS AND RISK FACTORS

Bone loss occurs without any significant symptoms. Symptoms may not be readily

apparent until, quite dramatically, a bone breaks from a minor bump. Some of the risk factors involved include:

- · family history of the disease;
- post-menopausal women who have low estrogen levels;
- · poor dietary habits
- · advanced age;
- · low testosterone levels in men;
- sedentary, inactive lifestyles; and
- excessive smoking and alcohol use.

#### **DETECTION**

A bone density test is a simple, safe, painless test for osteoporosis that is quick and can be done in a doctor's office. This test can detect the disease before a fracture occurs, and it allows preventative measures to be taken. An annual visit to the doctor's office can aid in early diagnosis.

### **PREVENTION**

Diet—Making our bones strong begins in early childhood and continues throughout adolescence until about the age of 30. Maximizing this bone-building process early in life will help to postpone the onset of osteoporosis in people who are susceptible to it. Good nutrition, a balanced diet and adequate calories and nutrients are essential for bone growth at all ages.

Calcium and Vitamin D are vital for both prevention and treatment. Both minerals build and replenish bones. Calcium can be derived from milk products, fish, shellfish, oysters and dark green vegetables such as broccoli, but not spinach—it contains oxalic acid and blocks absorption of calcium.

It is crucial to determine how much calcium you get in your diet before you start any supplements, since many foods are fortified with calcium already.

Physical activity— Keep active at all ages to strengthen your bones and keep your body flexible. Before you begin any exercise program, check with your doctor. Walking, stair climbing and weight lifting are good exercises to start with.

#### **TREATMENT**

In addition to a healthy diet, physical activity and mineral supplements such as a calcium and vitamin D, estrogen and other hormonal supplements may be prescribed for postmenopausal women.

As women age, the hormone estrogen (and in men testosterone, to a lesser extent) diminished in production. Estrogen is necessary for the absorption of calcium. Supplementing estrogen after menopause helps to delay the onset of osteoporosis, if you are susceptible to it.

Non-hormonal drugs are also available and approved by the FDA for use in the treatment of the disease. You and your health care provider can decide what is best for you.

Further information on osteoporosis may be obtained from the National Osteoporosis Foundation, 1232 22nd St. NW, Washington, DC, by calling 202-223-2226, or by going to the Website at http://www.nof.org

### Resources

NOTES:

National Institute of Health Consensus Statement Online (2000, March 27-29). Osteoporosis, Prevention, Diagnosis, and Therapy, 17 (1), 1-6. Retrieved May 5, 2002 from http://consensus.nih.gov/

National Institutes of Health. (2001, August). National Institutes of Health Osteoporosis and Related Bone Disease, National resource Center, fact sheets, Washington, DC; NIH. Accessed May 14, 2002 from http://www.niams.nih.gov/Health\_Info/Bone/

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