



osteoporosis

Risk factors:

- Female
- Caucasian
- Post-menopausal woman
- Older adult
- Physically inactive
- Eating a diet low in calcium
- Small in body size

Most adults want to live long, productive lives. Assuming some personal responsibility, along with your physician, for managing your health is a step in the right direction. Strong bones are an important component in a child's early efforts to master the task of walking. They are just as significant as you age. During the first 20 years of life, bone formation is the most important factor. After 20, prevention of loss is the most important factor. The most common skeletal disease is osteoporosis, which is characterized by compromised bone strength with a propensity for fracture, particularly in the hip, wrist and spine. While both men and women are at risk, women assume the larger share.

The skeletal system protects the internal organs, provides body support and allows people to be mobile. It is also a storehouse for the essential minerals, calcium and phosphorus. Weight bearing places an enormous amount of pressure on the skeleton, so bones must be strong to meet the demand. Most people do not think of bone as living cellular tissue continually in the process of renewal. One kind of bone cell dissolves and assimilates old bone, another type makes new bones.

It was predicted in the 2004 "Bone Health and Osteoporosis: A Surgeon General's Report," that by 2020, 1 in 2 Americans aged 50 and older will be at risk for fractures from osteoporosis or

low bone mass. "Diagnosis and Treatment of Osteoporosis," published in the February, 2009 American Family Physician, says 8 million women and 2 million men in the United States already have osteoporosis. There are many causes of bone loss and the resultant fractures in osteoporosis, such as lack of weight bearing exercise, smoking, decreased sex hormone production, calcium and vitamin D deficiency and loss of the ability to replenish bone cells with age. An estimated 1.5 million fractures occur annually with the resulting fracture treatment accounting for around 1.4 billion dollars in health care costs.

Environmental factors and genetics both exert an influence on bone strength. For example, the size and shape of the skeleton is determined by genetics. Defects can cause thin, weak bones or even bones that are too thick. For most individuals, environmental concerns are extremely modifiable; physical activity and diet affect bone health throughout life.

Osteoporosis is primarily diagnosed through a special x-ray called densitometry. In densitometry, an accurate measurement of the amount of bone is obtained. This measurement is referred to as bone mineral density (BMD). The result of the BMD is compared to that of a 25 year old female. Treatment consists primarily of medication. Prevention is the goal.

The benefits of exercise are well documented. Exercise enhances mood, increases your energy level, helps manage body weight, promotes better sleep, and reduces the risk of some illnesses such as diabetes, high blood pressure, high cholesterol, heart disease, stroke, certain cancers—and osteoporosis. And it can also be just plain fun. Talk to your physician before embarking on changes in your lifestyle, particularly an increase in your exercise regimen.

Eating a balanced diet rich in calcium and vitamin D can be easily achieved by most with a little planning. Nutrient-dense milk, which has often been called nature's most perfect food, should be one consideration in preventative maintenance. An 8 ounce cup of low-fat or fat-free milk provides 30% of an adult's daily requirement for calcium, 20% for phosphorus, and 25% for Vitamin D, all necessary for strong bones, plus six other dietary essentials. Limit your intake of alcohol and smoking, which makes it difficult for your body to absorb calcium.

It's true what your mother told you. Drink your milk; it really does do your body good.

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