



### WHAT IS OSTEOPOROSIS?

Osteoporosis is a crippling bone disease which is reaching epidemic proportions among Americans, especially women. Its impact on individuals and society in terms of physical, emotional and financial suffering is enormous.

As more becomes known about the prevention and treatment of osteoporosis, individuals may be spared this suffering in later years. In the past 5 years, research has increased our understanding of osteoporosis, and has produced several drugs to treat it effectively. But for now the best advice is to start early on a lifelong course of action which may help prevent bone loss. One can start by including adequate intake of calcium-rich foods such as milk and other dairy foods. This, coupled with a regular exercise program, can go a long way toward contributing to healthy bones throughout life.

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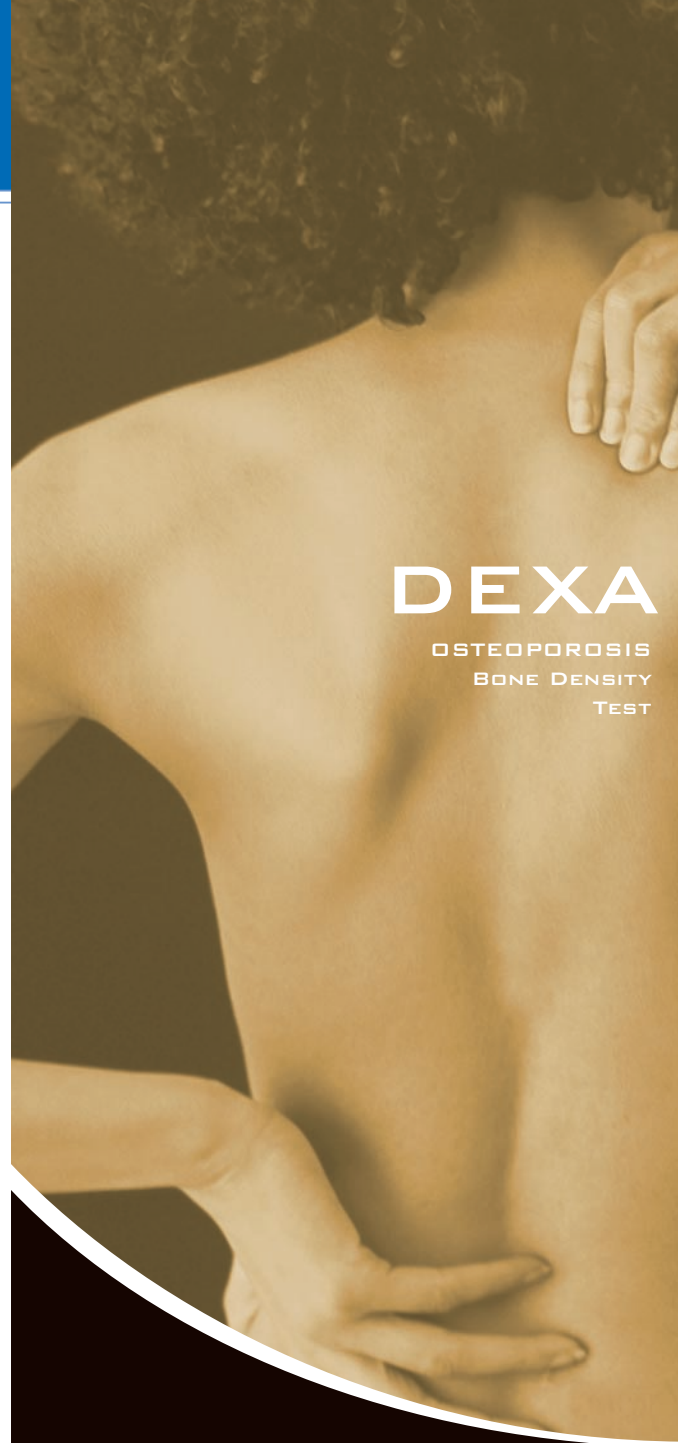
590 Eureka Avenue (6th and Wells)



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## WHAT CAUSES OSTEOPOROSIS?

The development of osteoporosis is a complex process with nutritional, physical, hormonal, genetical and racial factors involved. Three of the major contributions to osteoporosis include:

**Calcium Deficiency:** Calcium insufficiency may be caused by two major factors: inadequate intake of calcium-rich foods or decreased availability of calcium. Studies indicate that low calcium intake accelerates bone loss, while an increased intake retards that process. Decreased availability may be due to an age-related decrease in absorptive capacity, inadequate intake of vitamin D (or little exposure to sunlight), or interference from certain drugs such as tetracycline, corticosteroids or aluminum-containing antacids.

**Lack of regular exercise:** Immobilized individuals lose bone at a high rate. Conversely, individuals who exercise regularly seem to be better protected against bone loss. Mechanical forces applied to bone through muscular contraction and gravitational pull stimulate bone formation. Exercises which pull and stress the long bones, such as walking and jogging, seem to be the most beneficial.

**Sex differences:** Sex hormones play a role in maintaining strong bones. As the female hormone, estrogen, decreases after menopause, the bones contribute a larger share of calcium to meet the body's need. This is the main reason that women are eight times more likely to develop osteoporosis than men.

### ADDITIONAL FACTORS THAT CONTRIBUTE TO OSTEOPOROSIS INCLUDE:

**Genetic factors:** Osteoporosis tends to pass from generation to generation. If a person "inherits" a long life from one's ancestors, he or she can expect more bone loss to occur simply by living longer. Osteoporosis is also more prevalent in certain ethnic groups. Caucasian and Asian women seem to be more at risk than African women.

**Dietary excesses:** Certain dietary constituents such as protein, alcohol, caffeine and fiber, when consumed in excess, may contribute to bone loss. Large amounts of vitamin A (more than 5000 I.U./day) or vitamin D (more than 1000 I.U./day) may compound the problem.

**Smoking:** Studies indicate that smokers typically have less bone mass than nonsmokers. This suggests a positive association between smoking and osteoporosis.

## EARLY DIAGNOSIS FOR OSTEOPOROSIS



Osteoporosis is a condition of too little bone mass. The chemical composition of the bone that exists is normal, but because there is less bone mass, the bones become brittle, weak and more susceptible to fracture. If one thinks of bone being analogous to Swiss cheese, osteoporotic bone is Swiss cheese with larger-than-normal holes.



Bone is in a constant state of change, a process known as remodeling. Small quantities of old bone are lost through resorption (broken down and absorbed), while at the same time new bone formation occurs. In osteoporosis, the formation of bone does not keep pace with its resorption.

Some bone loss occurs universally with aging, especially in females. In an advanced state, bone loss can lead to primary osteoporosis.

### OSTEOPOROSIS CAN ROB YOU OF YOUR INDEPENDENCE

Osteoporosis and associated fractures can rob you of your mobility and your independence. Osteoporosis is a disease that reduces the strength of your bones, causing them to become brittle and prone to fractures.

Approximately 50% of women over the age of 50 have osteoporosis and are at risk of an osteoporosis-related fracture. A woman's risk of hip fracture alone is equal to the combined risk of developing breast, uterine and ovarian cancer — and up to 20% of women who suffer hip fractures die within one year of the fracture.



WE WILL HAVE YOUR RESULTS BACK TO YOUR DOCTOR WITHIN 24 HOURS.



### ONLY A BONE DENSITY TEST CAN TELL YOU FOR SURE...

Today there are a variety of effective ways to manage osteoporosis. Early detection using a bone density test is the best way to protect yourself from the debilitating effects of this all-too-common condition.



### HOW IS A BONE DENSITY TEST DONE?

A DEXA (Dual Energy X-ray Absorption) scan is a simple, painless, non-invasive bone density testing procedure. You will be asked to lie still on an exam table while your vertebrae in the lower spine are imaged.



### IS A BONE DENSITY TEST THE SAME AS A BONE SCAN?

No. A "bone scan" is a procedure requiring an injection of radioactive material. A bone density test is faster and requires no special preparatory drinks, medications or injections.



### HOW DO I SCHEDULE MY EXAM?

Osteoporosis exams may be scheduled at your request with your physician's order.



### WHAT WILL THE BONE DENSITY TEST REVEAL?

The test will measure your Bone Mineral Density (BMD), or bone mass, and compare that number with a reference population whose age, sex and racial background are similar to yours. This information will help your doctor determine if you need to take any specific steps to protect your bone health.

For more information on this and any of our exams, visit us on the web at [renodiagnosticcenters.com](http://renodiagnosticcenters.com)