

# Understanding **OSTEOPOROSIS**

## The disease, risk factors, and prevention

Osteoporosis, or porous bone, occurs when bone loses bone mass and the bone tissue deteriorates. This leads to fragile bones, which increases susceptibility to fractures. Today, it is estimated that there are 10 million Americans with osteoporosis and almost 34 million with low bone mass, placing them at risk for osteoporosis.

If not prevented, or if left untreated, osteoporosis can progress painlessly until a bone breaks. A person with osteoporosis can fracture a bone from a minor fall from a simple action such as a sneeze, or even spontaneously. Approximately one in two women and one in four men over age 50 will have an osteoporosis related fracture in their remaining lifetime. In 2005, Osteoporosis was responsible for approximately 2 million fractures.

### **Risk Factors**

Certain factors place one at a higher risk to develop osteoporosis. These include:

- ✓ Being female
- ✓ Older age
- ✓ Family history of osteoporosis or broken bones
- ✓ Being small and thin
- ✓ A Caucasian or Asian racial background has a higher risk, but any race can develop Osteoporosis.
- ✓ History of broken bones after age 40
- ✓ Low sex hormones
  - Low estrogen levels in women, including menopause
  - Low levels of testosterone in men
- ✓ Diet
  - Low calcium intake
  - Low vitamin D intake
  - Excessive intake of protein, sodium, or caffeine
- ✓ Inactive lifestyle
- ✓ Smoking
- ✓ Alcohol abuse
- ✓ Certain medications such as steroid medications, some anticonvulsants and others
- ✓ Certain diseases and conditions such as anorexia nervosa, rheumatoid arthritis, gastrointestinal diseases and others

(National Osteoporosis Foundation)

### Symptoms

Generally, people cannot feel their bones getting weaker and do not know that they have osteoporosis until they break a bone.

### Prevention

Because osteoporosis is a disease that can be prevented and treated, early diagnosis can make a difference. At any age, it is important to take steps to avoid osteoporosis and fractures. Building strong bones during childhood and adolescence can help prevent osteoporosis later in life. The National Osteoporosis Foundation recommends the following steps to help prevent osteoporosis later in life.

- ✓ Get the daily recommended amounts of calcium and vitamin D
- ✓ Engage in regular weight-bearing and muscle-strengthening exercise
- ✓ Avoid smoking and excessive alcohol
- ✓ Have a bone density test and take medication when appropriate

(National Osteoporosis Foundation)

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# Diagnosis and prevention of osteoporosis

## Diagnosis

Bone mineral density (BMD) tests can measure bone density in various sites of the body. At Rockford Orthopedic we offer a Dual Energy X-ray Absorptiometry (DEXA) test. This test can:

- ✓ Tell if a person has low bone density before a fracture occurs
- ✓ Tell if a person's bones are losing bone density or staying the same when the test is repeated at intervals of one year or more
- ✓ Predict the chances that a person will have a fracture in the future (National Osteoporosis Foundation)

## Suggested daily intake:

<u>Calcium</u>	1200 - 2000 mg. per day, including diet and supplements
<u>Vitamin D</u>	800 - 1200 IU per day from supplements, including multivitamins and Calcium

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## The Osteoporosis Center at Rockford Orthopedic Associates

The Rheumatology Department at Rockford Orthopedic specializes in the care of chronic musculoskeletal conditions including osteoporosis. Once considered an inevitable part of the aging process, osteoporosis is now recognized as a treatable condition. Drs. David Dansdill and Richard Olson, and Physician Assistant Tami Kucia have extensive experience and expertise in osteoporosis assessment, prevention, and treatment.

Patients with fractures require evaluation for osteoporosis as well as medical conditions that lead to bone loss.

Osteoporosis is detected prior to occurrence of fractures by DEXA (Dual Energy X-Ray Absorptiometry). Treatment of osteoporosis is monitored by DEXA. In some cases, blood and urine tests may also be required to optimize therapy.

Effective use of medications reduces the likelihood of suffering repeated fractures and disability. While adequate intake of calcium and vitamin D is necessary for all fracture patients, most patients also require prescription medical treatments.

Dairy products are excellent sources of calcium. An eight-ounce glass of milk contains about 300 mg of calcium. Sardines with bones, broccoli, collard greens, and other green leafy vegetables are also calcium rich foods.

## American Academy of Orthopaedic Surgeons recommended exercise for osteoporosis prevention:

Exercise, no matter what your age, will help minimize bone loss, as well as provide additional health benefits. Regular exercise (3 to 4 times a week) is effective for the prevention and management of osteoporosis. Weight bearing exercises are the best forms of exercise. These include: walking, jogging, hiking, aerobics, and dancing

Furthermore, since 50% of fractures occur after a fall, programs that improve balance, muscle strength and coordination should be emphasized.

## Bone Density Testing

The DEXA scanner at Rockford Orthopedic is simple, safe, noninvasive and painless, and there is no need for the patient to undress. Patients are asked to wear comfortable clothing, preferably something without metal buttons, buckles or zippers.

A measurement takes from 10 to 20 minutes, with the patient lying still on a padded table. There is very little exposure to radiation - in fact, much less than a standard chest X-ray.

At Rockford Orthopedic, a brief dietary history will be obtained during your visit. We also ask that you bring all Calcium and vitamin supplements. We will calculate your total daily intake of Calcium and Vitamin D. This will allow your physician to recommend exactly what additional supplementation is needed, if any.

TO SCHEDULE BONE DENSITY TESTING,  
PLEASE CALL

**(815) 398-9491**