How Can Osteoporosis be Prevented and Treated?

Healthy lifestyle:

If applicable, the following lifestyle changes should be made to help protect bones:

- ✓ Quit smoking
- ✓ Avoid excessive alcohol (≥ 2 servings/day)
- ✓ Avoid diets high in sodium and protein
- ✓ Avoid excessive caffeine intake (≥ 2 servings/day)

Appropriate Exercise:

Regular weight-bearing exercise, which causes muscles to work against gravity can help build bone mass. Other exercises can improve strength, balance and agility.

Examples of bone building exercises:

- ✓ jogging
- ✓ walking
- ✓ tennis
- ✓ aerobics
- ✓ free weights

Fall Prevention:

- ✓ Remove or firmly anchor rugs
- ✓ Have good lighting in every room
- ✓ Apply adhesive strips to tubs or showers
- ✓ Use handrails when going up or down stairs
- ✓ Wear shoes that grip well
- ✓ Talk to a doctor or pharmacist about medications that may impair balance

Medications Available for the Treatment of Osteoporosis:

- ✓ Alendronate (Fosamax®)* or risedronate (Actonel®)* - once weekly oral
- ✓ Teriparatide (Forteo®)* - once daily subcutaneous injection
- ✓ Raloxifene (Evista)** – once daily oral
- ✓ Calcitonin (Miacalcin)* – once daily intranasal
- ✓ Other: Hormone Replacement Therapy (estrogen +/- progesterone for women or testosterone for men)

* Can be used in men and women
** Only to be used in women

Appropriate Calcium Intake:

National Osteoporosis Foundations recommends:

- ✓ elemental calcium intake of 1,000 mg/day in adults < 50 years of age
- ✓ elemental calcium intake of 1,200 mg/day in adults ≥ 50 years of age

Diet (foods high in calcium):

- ✓ yogurt (300mg/cup)
- ✓ fortified orange juice
- ✓ broccoli (72mg/spear)
- ✓ milk (300mg/cup)
- ✓ cottage cheese (155 mg/cup)
- ✓ fortified breakfast cereals/bars
- ✓ cheese (~200mg/oz.)

Know how to read food labels:
(30% calcium = 300 mg elemental calcium per serving)

Supplements (e.g., TUMS®, Oscal®, Citracal®)

- ✓ Do not take > 500 mg elemental calcium at one time; divide up calcium intake throughout the day
- ✓ Calcium carbonate needs to be taken with food, calcium citrate can be taken with or without food
- ✓ Make sure you know how much elemental calcium is in each tablet of the product you are taking

Adequate Vitamin D Intake:

Normally, the body makes enough vitamin D from exposure to sunlight. With aging, the body's ability to make vitamin D decreases.

National Osteoporosis Foundations recommends:

- ✓ 400-800 IU/day
- ✓ This can be obtained from Vitamin D fortified food & milk, or supplements (most multivitamins contain 400 IU of vitamin D)
- ✓ Elderly who don't get enough sunlight exposure or people with certain health conditions may have low vitamin D and higher vitamin D doses may be needed

Understanding Osteoporosis

What is Osteoporosis?

Osteoporosis is a disease in which bones become weak and brittle, making them more prone to fractures.

Fractures resulting from osteoporosis occur most commonly at the hip, spine and wrist. These fractures can be disfiguring and disabling.

Osteoporosis Facts:

- ✓ 10 million Americans have osteoporosis
- ✓ 34 million are at increased risk for developing osteoporosis
- ✓ >1.5 million osteoporotic fractures occur each year
- ✓ Osteoporosis can be prevented and treated

What Causes Osteoporosis?

Throughout life, bones are continuously being recycled. Old bone is removed and new bone is formed. This helps keep bones healthy.

Osteoporosis is caused by an imbalance in this cycle. Too much bone is removed, too little is formed or a combination of both.

Certain disease states, medications as well as aging or an unhealthy lifestyle can cause an imbalance in this cycle to occur.

What are the Risk Factors for osteoporosis?

- ✓ Age >65 years - women*, >70 years – men*
- ✓ Cigarette smoking*
- ✓ Low body weight*
- ✓ Prolonged exposure to certain medications (e.g., steroids)*
- ✓ Chronic disease states that affect the kidneys, lungs, stomach and intestines
- ✓ Genetics: family history*, Caucasian/Asian race
- ✓ Hormone deficiency (estrogen - menopause or testosterone)
- ✓ Unhealthy lifestyle: excessive alcohol, inactivity, and low calcium intake
- ✓ History of a low trauma fracture as an adult*

(* = major risk factor)

Who Should Undergoing a Bone Density Screening Test for Osteoporosis?

- ✓ Perimenopausal or postmenopausal women with risk factors for osteoporosis.
- ✓ Not currently recommended for men or premenopausal women.
- Screening tests measure bone density at the heel, finger or forearm.
- The screening test is only used for risk assessment, not for the diagnosis of osteoporosis.

Who Should Undergoing a Bone Density Diagnostic Test for Osteoporosis?

- ✓ Men ≥70 years old, women ≥65 years old.
- ✓ Postmenopausal women <65 years of age with ≥1 major risk factor for fracture.
- ✓ Perimenopausal or postmenopausal women with an abnormal screening peripheral bone density test.
- ✓ Men & Women who have experienced a low trauma fracture.
- ✓ Men & Women with X-ray evidence of osteopenia or osteoporosis.
- ✓ Men & Women with X-ray evidence of a vertebral deformity.
- ✓ Men & Women with a documented height loss of >1.5 inches.
- ✓ Men & Women with disease states or taking medications known to increase the risk for bone loss and fracture.
- Central DXA (dual energy x-ray adsorptiometry) is the test used for the diagnosis of osteoporosis. It measures total body, hip and spine bone density.
- This test requires a referral from your doctor.

For Further Information:

- ✓ www.nof.org
- ✓ www.osteo.org
- ✓ www.menopause.org

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