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Contact: Heidi M. Gordon
Director of Communications
hgordon@ohioafp.org

Family Physicians Advise Keeping Bones Healthy and Strong

(COLUMBUS, Ohio)—Osteoporosis causes the inside of bones to become porous from a loss of calcium and changes in bony tissue with age, which eventually weakens the bones and makes them more likely to break.

Osteoporosis is much more common in women than in men because women have less bone mass than men, tend to live longer, take in less calcium and need the female hormone estrogen to keep their bones strong. Men are also at risk later in life or if they have deficiency of testosterone hormone.

“I ask my female patients to consume at least 1,000 mg of calcium and 400 International Units (IU) of vitamin D daily, both are important as vitamin D helps increase absorption of calcium” said Arvind Modawal, M.D., M.P.H., M.R.C.G.P., a family physician and faculty at the University of Cincinnati College of Medicine. “I also encourage daily weight-bearing exercises and an increase in exposure to sunlight, particularly during winter months.”

Once total bone mass has peaked—around age 35—all adults start to lose it. In women, the rate of bone loss speeds up after menopause, when estrogen levels fall. Since the ovaries make estrogen, faster bone loss also may occur if both ovaries are removed by surgery. Men with removal or reduced functioning of testicles due to disease or aging also may face the problem of osteoporosis.

You may not know that you have osteoporosis until you have serious signs such as broken bones, lower back pain or a hunched back. Also, you may get shorter over time because osteoporosis can cause your vertebrae (the bones in your spine) to collapse. These problems tend to occur after a lot of bone calcium already has been lost.

“I begin to suspect and start prevention and treatment of osteoporosis in patients who have a history of a previous fracture after a fall or trivial trauma, have a history of fracture in a first-degree relative, are female, are Caucasian or Asian, have a loss of height, have unexplained back pain or have poor mobility or inactivity and have estrogen or testosterone deficiency,” said Modawal.

Any bone can be affected but of special concern are fractures of the hip and spine. A hip fracture almost always requires hospitalization and major surgery. It can impair a person's ability to walk unassisted and may cause prolonged or permanent disability or even death. Spinal or vertebral fractures also have serious consequences, including loss of height, severe back pain and deformity.

Once you are diagnosed, your family physician has several options as courses of treatment to help you manage osteoporosis. These include hormone replacement therapy and other prescription medications, eating a well-balanced diet and exercise.

The Ohio Academy of Family Physicians is a statewide professional association with more than 4,400 members, including practicing physicians, family medicine residents and medical students. The scope of family medicine encompasses all ages, both sexes and every disease entity. Family physicians provide comprehensive, continuing care to all members of the family.

FACT SHEET

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Risk Factors

Certain people are more likely to develop osteoporosis than others. Factors that increase the likelihood of developing osteoporosis are called “risk factors,” which include:

- Personal history of fracture after age 50
- Current low bone mass
- Being female
- Being thin and/or having a small frame
- Advanced age
- A family history of osteoporosis
- Estrogen deficiency as a result of menopause, especially early or surgically induced
- Abnormal absence of menstrual periods (amenorrhea)
- Low lifetime calcium intake
- Vitamin D deficiency
- Use of certain medications, such as corticosteroids and anticonvulsants
- Presence of certain chronic medical conditions
- Low testosterone levels in men
- An inactive lifestyle
- Current cigarette smoking
- Excessive use of alcohol

Detection

Specialized tests can measure bone density in various sites of the body. A bone density test can:

- Detect osteoporosis before a fracture occurs
- Predict your chances of fracturing in the future
- Determine your rate of bone loss and/or monitor the effects of treatment (with digital radiogrammetry and bone mineral density test)

Prevention

By approximately age 20, the average woman has acquired 98 percent of her skeletal mass. Building strong bones during childhood and adolescence can be the best defense against developing osteoporosis later in life. Together, these four steps can optimize bone health and help prevent osteoporosis:

- A balanced diet rich in calcium and vitamin D
- Weight-bearing exercise
- A healthy lifestyle with no smoking or excessive alcohol intake
- Bone density testing and medication when appropriate