

Shands HealthCast - July 2008

Osteoporosis

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Intro:

Welcome to another Shands HealthCast brought to you by Shands HealthCare. Today we're talking with Dr. Kent Wehmeier, an associate professor of internal medicine and division chief of endocrinology with the University of Florida College of Medicine – Jacksonville. Spend the next few minutes with Dr. Wehmeier as he discusses the risk factors, treatment options, prevention, research and even some of the myths related to osteoporosis. If you'd like to schedule a new patient appointment at Shands Jacksonville, please call (904) 383-1004 or visit <http://jax.shands.org>.

Who does osteoporosis effect?

Osteoporosis or thinning bones is a very common problem. Broken bones due to osteoporosis affect 1 in 2 women as well as 1 in 5 men over 50. Athletes and military recruits can get another type of fracture if there is not enough time for the bone to recover called a stress fracture.

All of us after age 30 begin to lose some bone and this is especially true when women go through menopause. When estrogen levels fall at menopause, there's a huge loss of bone that occurs. Osteoporosis is genetically determined, particularly if a close relative has experienced a hip fracture after menopause. This rapid loss of bone also occurs in younger women who stop menstruating due to medication or lifestyle changes. A weight of less than 126 pounds in females is thought to also raise the risk of osteoporosis. Alcohol intake above two drinks a day can also increase the risk. There are a number of medications that can deplete minerals and calcium and lead to osteoporosis. Factors for men may include low testosterone levels or being treated for prostate cancer as the medicines often used to treat prostate cancer reduce the amount of testosterone. Men with low energy and loss of sex drive may have low testosterone. Other hormonal problems may also increase risks of osteoporosis such as high parathyroid hormone as well as high thyroid hormone and low vitamin D in men and women. Individuals that have low calcium intake or milk intolerance are also at increased risk of osteoporosis.

Should I get screened for osteoporosis?

Osteoporosis is a serious disease. The U.S. Preventive Services Task Force recommends that women age 65 and older be screened routinely for osteoporosis. This organization recommends that routine screening begin at age 60 for women at increased risk for osteoporotic fractures. In women, the lifetime risk of death from a hip fracture is almost 3 in 100, the same as breast cancer. The National Osteoporosis Foundation has published guidelines for men. All men age

50 to 70 with one or more risk factors should be screened as well as all men above age 70. If a man or woman has a fracture after falling from a level that is less than standing height, they should be screened for osteoporosis.

How is osteoporosis treated at Shands Jacksonville?

A multidisciplinary approach is used involving endocrinology, rheumatology orthopedics, gynecology and physical therapy to focus on the whole patient as many factors are important in fractures. We have two sites where you can receive a screening bone mineral density test or dual energy X-ray absorptiometry at Shands Jacksonville or at the UF Southside Specialty Clinic located in the Emerson Medical Plaza. Treatments may involve physical therapy where patients are assessed for balance and gait issues and may include exercises that help with balance or assistive devices and therefore avoid falls. To reduce bone loss, we advise adequate exercise and nutrition including calcium and vitamin D. Medication may involve a pill or infusion treatment.

What steps can someone take to help prevent osteoporosis?

Prevention begins in early childhood. Bone formation that occurs in the hip and spine is completed before age 19. Ensuring that individuals and adolescents have adequate amounts of calcium is extremely important. After adolescence there is an increase in calcium that gets into the bone, but it's more maturing of the crystals that are inside the bone that occurs. The way that this can be increased is by regular exercise as well as ensuring that there's an adequate amount of calcium that's taken in.

Beyond age 30, there are guidelines that suggest that at least 1,200 milligrams of calcium be taken in every day through the diet or through the use of supplements with calcium carbonate. Limiting alcohol intake to two drinks or less per day, eliminating smoking and attaining adequate amounts of exercise that include weight bearing exercise will help combat this condition. Generally walking is not strong enough in terms of weight bearing to maintain bone strength. Exercises that include more weight bearing as well as balance are important in preventing falls. Discuss with your doctor before starting an exercise program.

What are some of the myths and misperceptions out there about osteoporosis?

A common misconception is that osteoporosis is a women's disease. It turns out that a third of hip fractures occur in men and that men who are over 70 should have a bone mineral density test to help screen for osteoporosis. If they too have a fragility fracture or a fall from standing height and have a fracture, they should also be treated if they have osteoporosis.

Another misconception is that obesity is protective. It is certainly true that underweight women and men are at higher risk with reduced muscle strength and lower amounts of muscle or fat tissue to absorb the force of a fall, but in obese children there is an increase in fractures of the forearm. Additionally, there is little difference in fracture risk between people that are normal weight for height and those that are overweight.

What research lies ahead for treating osteoporosis?

There are currently research studies for new medications that use different pathways in the body to raise bone strength and prevent bone loss. Other research trends include the evaluation of fall clinics and whether they might be successful in reducing fractures. Our current evaluation of osteoporosis includes measurement of bone mineral density. This testing through dual energy X-ray absorptiometry only tells us about the bone quantity. It tells us little as far as the bone quality. There are currently studies evaluating bone quality in addition to using techniques such as an MRI or an ultrasound that look at only the structure.