

Osteoporosis Screening Not Supported for Men

BY SHERRY BOSCHERT

FROM THE ANNALS OF
INTERNAL MEDICINE

New federal recommendations on screening for osteoporosis provide more detail on when to screen women younger than age 65 years and – for the first time – point to a lack of data to guide screening decisions in men.

The U.S. Preventive Services Task Force updated its 2002 recommendations on osteoporosis screening to call for routine screening in all women aged 65 years or older and in any younger women whose fracture risk is equal to or greater than that of a 65-year-old white woman who has no additional risk factors (equivalent to a 9.3% or greater risk of fracture within 10 years). Previously, women younger than 65 years would be screened if they were at least 60 years old with risk factors for fracture.

The new recommendations were posted on the USPSTF Web site (www.uspreventiveservicestaskforce.org/uspstf10/osteoporosis/osteors.htm) and published online by the Annals of Internal Medicine on Jan. 18.

For the first time, the USPSTF evaluated the evidence for osteoporosis screening in men and found insufficient evidence to form any recommendation, Dr. Ned Colange, chair of the USPSTF, said in an interview. There's not enough evidence to recommend osteoporosis screening or treatment in men with no prior osteoporotic fractures, and "there's certainly not enough evidence to say, 'Don't do it,'" he said. "While there's not a call to action, that's an important call for research," added Dr. Colange, who is president and CEO of the Colorado Trust Foundation, Denver.

In women, the recommendations do not say to stop osteoporosis screening at any specific age because the risk of fractures continues to increase with advancing age, and the minimal potential harms

of treatment remain small. Clinicians who are considering treating older patients with significant morbidity should consider that the benefits of osteoporosis treatment take 18-24 months to emerge.

To predict an individual's risk for osteoporotic fracture, the USPSTF used the online FRAX tool, developed by the World Health Organization and the National Osteoporosis Foundation. "The nice thing about the FRAX calculator is, the patient herself can determine that risk. It's available online. It uses measures that the woman should know," Dr. Colange said.

The FRAX tool estimates 10-year fracture risk based on easily obtained information such as age, body mass index (BMI), parental fracture history, and tobacco or alcohol use. It asks about results of dual-energy x-ray absorptiometry scans but does not require this information.

Younger women can reach the new threshold for screening because of various risk factors. For example, a white woman would qualify for screening if she is 50 years old, smokes, drinks alcohol daily, has a BMI less than 21, and has a parental history of fracture. A 55-year-old white woman would need only a parental fracture history to warrant osteoporosis screening. A 60-year-old white woman who smokes and drinks alcohol daily would fit the 10-year-risk profile for screening.

White women are more likely than women of other races to develop osteoporosis and fractures. Although there are fewer data on nonwhite women, the USPSTF recommended screening all women at age 65 because the consequences of failing to identify and treat low bone-mineral density are considerable, and the potential risks of treatment are small.

There are not enough data to recommend when to rescreen women without osteoporosis on their initial screen, the USPSTF stated, but at least a 2-year in-

terval would be needed to assess a change in bone density and perhaps longer for better prediction of fracture risk.

The new recommendations are based on a 2010 review of studies published since 2002; the review was done by a team at the University of Oregon Health and Science University's Evidence-Based Practice Center in Portland.

An estimated 12 million Americans aged 50 years or older will have osteoporosis in 2012. Among postmenopausal women, 15% will develop a hip fracture during their lifetime, 25% will develop a

vertebral deformity, and osteoporotic fractures of any kind will affect 50%.

In a new effort at transparency, the USPSTF first published a draft of the new recommendations online in the summer of 2010 and invited public comment. They received more than 50 comments from individuals, professional organizations, advocates, and pharmaceutical companies, Dr. Colange said, which led the USPSTF to clarify its approach to fracture risk assessment in the final version.

Dr. Colange said he has no pertinent conflicts of interest. ■

Screening Calculations Now Needed

For clinicians, the biggest change in the new screening recommendations may be the need to calculate the 10-year fracture risk in women younger than 65, two experts suggested in interviews.

"They will need to know what tools are out there to be able to figure out whether a younger person is at equal to or greater risk than a 65-year-old woman with no additional risk factors," Dr. Carolyn J. Crandall said.

The online FRAX calculator that was used by the USPSTF is a "really good tool" for this purpose, she said. "Clinicians will have to access that tool in their clinics, which means they will either need Internet access at some point, or else they can download versions that are available for iPhone, or print versions."

Dr. Edward S. Leib also commended inclusion of the FRAX tool in the guidelines, but cautioned that it has some weaknesses that were discussed at a November 2010 "position development conference" conducted jointly by the International Osteoporosis Foundation and the International Society for

Clinical Densitometry.

Some important risk factors that could affect the 10-year fracture risk would not necessarily be reflected in the FRAX calculation, he said. In addition, the FRAX tool is based on an international model, and although it included U.S. databases, the calculations may not reflect risks in regional populations.

Both Dr. Crandall and Dr. Leib also commended the USPSTF for acknowledging the need for more research in men, but Dr. Leib had hoped for more guidance. "It is known that the fracture risk in men who are age 75 is about equivalent to women who are age 65. I would have hoped that the USPSTF would have recommended screening at that age" despite the lack of primary prevention trials, he said.

DR. CRANDALL is professor of medicine at the University of California, Los Angeles. DR. LEIB is professor of medicine at the University of Vermont, Burlington. Both said they have no pertinent conflicts of interest.

VIEWS ON THE NEWS

Surprising Results Link Visceral Obesity to Osteoporosis

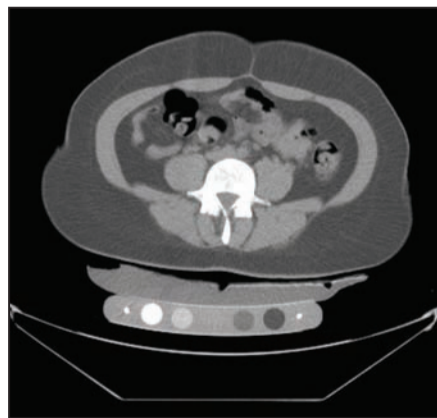
BY SUSAN BIRK

FROM THE ANNUAL MEETING OF
THE RADIOLOGICAL SOCIETY OF
NORTH AMERICA

CHICAGO – Visceral obesity was associated with low bone mineral density in a study of premenopausal women, indicating that abdominal fat is a risk factor for osteoporosis.

The finding indicates that "obesity does not always protect against osteoporosis," study investigator Dr. Miriam A. Bredella said in a press briefing at the meeting. "Excessive visceral fat is not only a risk factor for heart disease and diabetes, but also for bone loss."

The study flies in the face of current thinking that obesity ac-



Abdominal CT scan in an obese woman shows high visceral adipose tissue.

tually protects against osteoporosis. Previous studies suggesting a link between fat and bone health focused primarily on body mass index (BMI), which in-

corporates muscle and bone mass and subcutaneous fat as well as visceral fat, she said. The present study zeroed in specifically on visceral fat.

Dr. Bredella noted "disturbing pictures emerging from the obesity epidemic, because the number of forearm fractures among young patients has increased dramatically over the last year, and the strongest risk

factor in that group ... was actually increased body weight." This finding prompted the investigators to see whether there was a connection between os-

teoporosis and fat, said Dr. Bredella of Massachusetts General Hospital and Harvard Medical School, both in Boston.

Fifty premenopausal women with a BMI of 19-46 kg/m² (mean 30) underwent a magnetic resonance spectroscopy exam to assess L4 bone marrow (BM) fat, followed by quantitative computed tomography to assess trabecular bone mineral density (BMD).

The results showed a positive correlation between visceral fat and BM fat ($r = 0.28$) and an inverse association between visceral fat and BMD ($r = -0.31$) and between vertebral BM fat and BMD ($r = -0.45$). These results were statistically significant. There was no correlation

between either subcutaneous fat (concentrated around the hips and thighs) or total body fat and either BM fat or BMD. These results reveal the distinctly detrimental effect of abdominal obesity on bone health, Dr. Bredella said.

The study is among the first to explore the relationship between body fat and bone marrow fat, and the dynamic appears to be complex, she said in an interview.

According to recent research, "the amount of fat within your bones could predict if you will develop a fracture independent of bone mineral density," she noted.

Dr. Bredella had no financial disclosures. ■