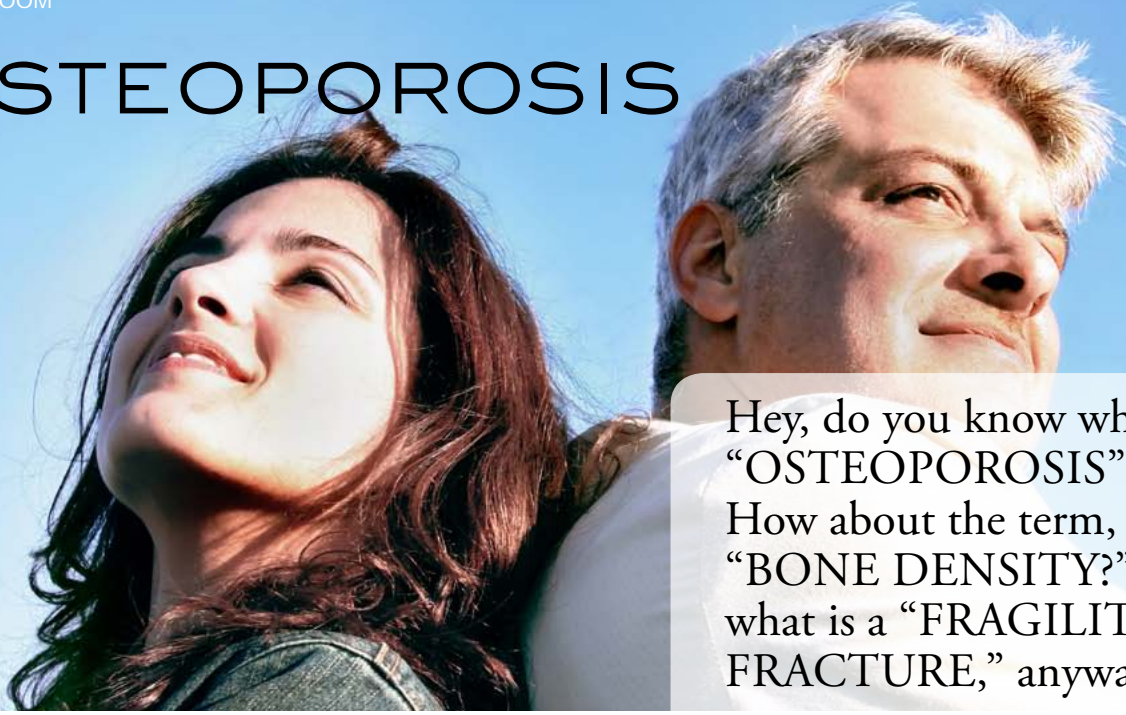


OSTEOPOROSIS



Hey, do you know what “OSTEOPOROSIS” means? How about the term, “BONE DENSITY?” And what is a “FRAGILITY FRACTURE,” anyway?

Osteoporosis is a bone disease characterized by low density and increased likelihood to fracture, that is to say, break. Density refers to the amount of hard, bony tissue within the bone. Think about wood, for instance. Pine is less dense and softer than walnut, which means it is also weaker than walnut and easier to break. In the same fashion, less dense bone is weaker and more likely to break. A fragility fracture is a bone break that occurs from a small amount of trauma, such as simply falling from a standing position or lifting a heavy object.

Low-trauma or fragility fractures are most commonly wrist, spine compression, and hip fractures. All three cause significant pain and suffering. Spine fractures can cause an anterior bending deformity, the typical dowager’s hump of elderly women. Hip fractures are more problematic, requiring surgery and sometimes even contributing to subsequent death.

In order to better understand the development of osteoporosis, you need to know a little about bone metabolism. Most people don’t realize, but bones are in a constant state of remodeling. It’s during this remodeling process that little “teams” of bone cells are formed called “bone remodeling units.” Once formed, these remodeling units are dispersed throughout the bone. Some members, called “osteoclasts,” digest old bone, while other members, called “osteoblasts,” form new bone. The new bone, with the help of vitamin D, hardens or mineralizes. Different bones remodel at different rates. For example, the spine is part of the skeleton and is especially active in bone remodeling; the hips are much less active.

We usually think of postmenopausal women as those most likely to develop osteoporosis. As estrogen (the female sex hormone) levels fall during menopause, the osteoclasts become more active, and an imbalance occurs because more bone is being digested than formed. Loss of bone tissue occurs and the

bones become weaker. But, for different reasons, men—and even children—can sometimes develop osteoporosis and suffer low-trauma fragility fractures.

Factors that contribute to increased fracture risk include a genetic predisposition, low dietary calcium intake, too little sun exposure with low body vitamin D, cigarette smoking, very low body weight, increased age, a family history of hip fracture, low sex hormone levels, certain medications (e.g. prednisone) and certain diseases (e.g. hyperthyroidism, gluten intolerance, and hyperparathyroidism). This list is not all-inclusive.

Fortunately, diagnostic bone mineral density testing (DXA) and laboratory tests can be very helpful in identifying low bone density and in finding contributing metabolic factors. Medications (several with prominent TV advertisements) are effective in improving bone density and can decrease fracture risk by 50 percent or more. Following a careful analysis, a physician can discuss best treatment options and management plans.

What can a health-conscious person do? Bring up the issue of bone health and ask your healthcare provider about the possible benefits of bone density (DXA) testing and osteoporosis prevention efforts for you.

To make an appointment with a endocrinologist near you, we invite you to visit the index at the back of this publication or intermountainmedicalgroup.org.

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