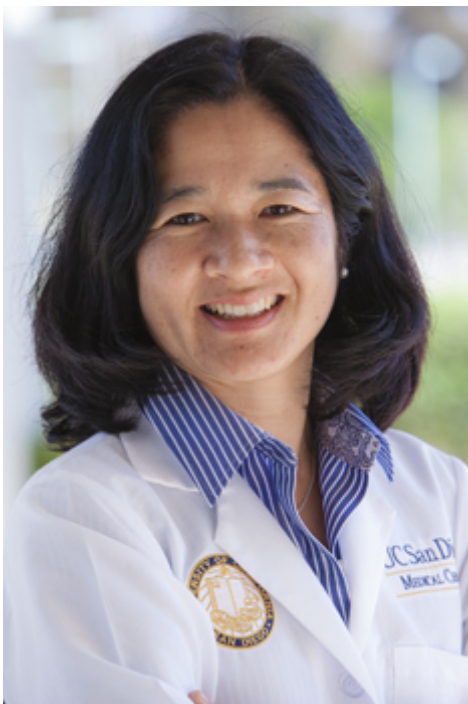


Preventing Osteoporosis: A Q&A with Bone Health Specialist Deborah Kado

By Shelley Herron | February 28, 2019

Osteoporosis happens when the balance of bone formation and bone resorption in the skeleton skews toward the latter, leading to porous bones. During childhood and young adulthood, bone formation outpaces bone resorption until peak bone mass is achieved around age 30. Bone loss then slowly begins to exceed formation, resulting in lower bone density and strength. Osteoporotic bones are characterized by low bone mass, less structural integrity and increased risk of fracture.



The most common fractures associated with osteoporosis occur at the hip, spine and wrist. The likelihood of these fractures increases with age in both women and men.

Around the world, one in three women and one in five age 50 and older are at risk of an osteoporotic fracture, according to the National Osteoporosis Foundation. There are no symptoms until the first fracture occurs. Yet once a fracture happens, the impact on functioning and quality of life can be substantial.

The main lifestyle choices that can help keep your bones healthy include weight-bearing exercise, a healthy diet, not smoking, drinking in moderation and getting sufficient calcium and vitamin D. But the last two are subject to debate. For better insight, we consulted Deborah Kado, MD, who leads the osteoporosis clinic at UC San Diego Health.

Calcium and vitamin D supplements have been the standard recommendation to help prevent bone fractures until recently. What is your current view of this?

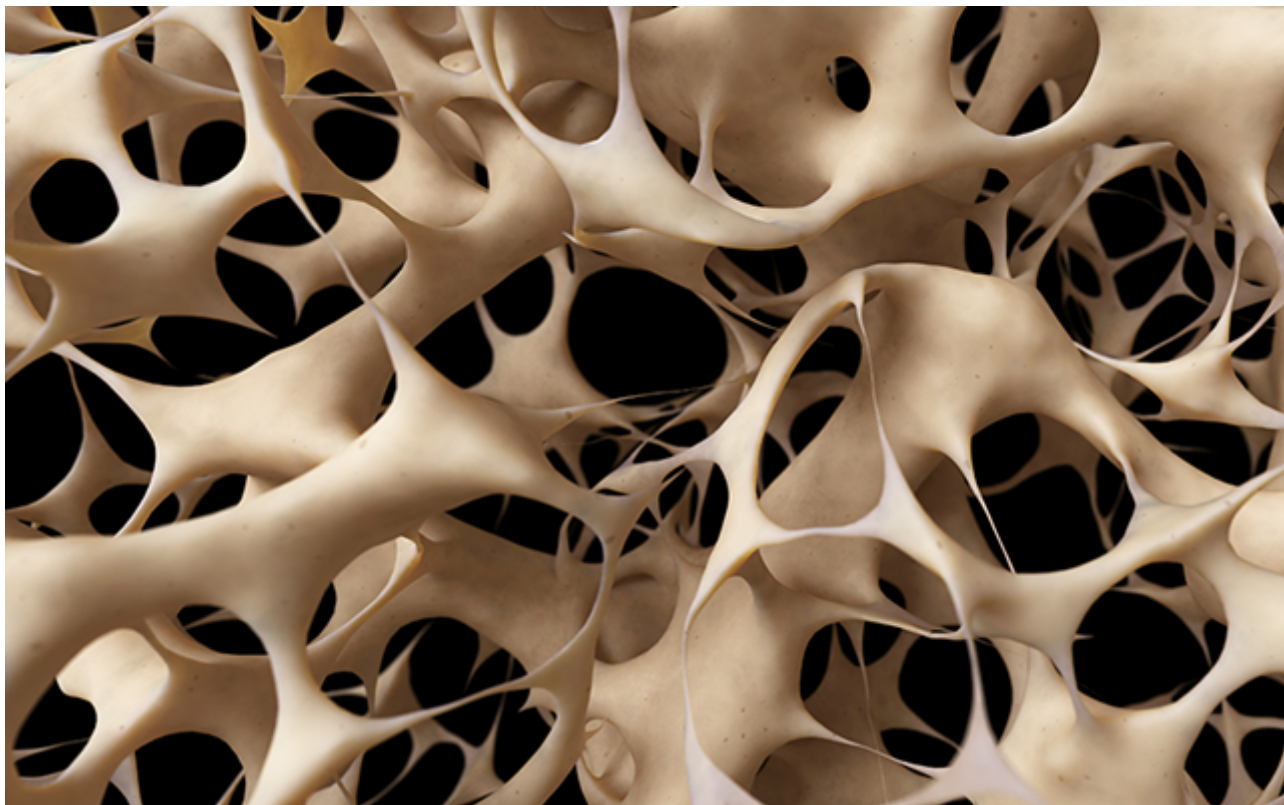
In 2010, The Institute of Medicine — now known as the National Academy of Medicine — which advises the federal government on health issues, reported that adequate calcium and vitamin D are two essential nutrients important for bone health, but that there was insufficient evidence to support their use for other health conditions. In fact, they specifically cautioned that, “higher

levels of both nutrients have not been shown to confer greater benefits, and in fact, they have been linked to other health problems, challenging the concept that 'more is better'."

In 2018, the U.S. Preventive Services Task Force, another health advisory group, issued a statement that there is insufficient evidence to assess the balance of the benefits and harms of daily supplementation of either calcium or vitamin D for the primary prevention of fractures. And most recently, an article on medical overuse in *JAMA Internal Medicine* covered calcium and vitamin D specifically, reiterating that calcium and vitamin D supplementation does not reduce fracture risk.

So how do you advise for your patients with regards to calcium supplementation?

It is clear that adequate calcium in the diet and sufficient vitamin D are important in maintaining bone health. My recommendation (in line with current FDA recommendations) is that older women and men should ingest about 1,000 to 1,200 milligrams of calcium daily, ideally through dietary sources. The average American consumes about 500 to 700 mg through diet, so in patients with low bone density or osteoporosis, I advise additional calcium supplementation of about 600mg, which is usually sufficient.



What about findings that suggest high calcium intake may increase the risk of heart

disease in women?

Some research, including results from randomized controlled trials, suggests that women who take calcium supplements greater than 800 mg daily may be at increased risk of heart attacks and death. Other large observational studies conducted in China, Singapore and Sweden demonstrate

that self-reported daily calcium intake less than 250 mg or greater than 800 mg is associated with increased hip fracture risk. Together, these studies strongly support the idea that more calcium is definitely not necessarily better for your health.

How much vitamin D do you recommend?

Vitamin D helps ensure adequate calcium absorption from the gut and also favors keeping a good balance of calcium in the bone. For those who have low bone density or osteoporosis, I generally recommend 800 to 1,000 International Units daily of vitamin D3.

What are the most common risk factors for osteoporosis that you see in your practice?

The [major risk factors](#) are increased age, history of prior low trauma fractures after age 50, a parent with a hip fracture, being female, being underweight, glucocorticoid use, smoking and excessive alcohol consumption.

Which factors are the hardest to mediate?

Of the modifiable osteoporosis risk factors, chronic steroid use is generally tough because there are usually good reasons why patients take steroids. However in 2019, most physicians are aware of the associated risks of long-term steroid use and aim to wean patients off them as soon as is possible.

Any final words of advice?

Be proactive and discuss your bone health with your doctor at each physical or on an annual basis. All women over the age of 65 and men over the age of 70 should have a bone density scan, which is covered by Medicare and recommended by the National Osteoporosis Foundation. It is important to note that for those diagnosed with osteoporosis, calcium and vitamin D alone are insufficient to prevent fractures. Multiple FDA-approved osteoporosis medications are very effective in preventing fractures, with many years of real-world use experience, reducing future fracture risk by about 50 percent overall. Adverse side effects associated with some of these drugs have been well-publicized, but there is very minimal risk for developing any longstanding, associated side effects, especially when prescribed and taken judiciously.

Finally, even before starting the medications, begin daily work on improving balance, posture and following a healthy diet. It will not only help optimize bone health, but overall healthy aging.

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