

When to get your bone density measured -- that is the question

May 12 2009

A new study provides doctors with guidelines on when to repeat bone mineral density (BMD) tests for their patients.

International clinical guidelines on the matter are hazy, with different practices followed in different countries. For a serious condition like [osteoporosis](#), affecting millions, it is important to establish clear protocols.

Professor Tuan Nguyen and Dr Nguyen Nguyen from the Garvan Institute of Medical Research, with PhD student Steve Frost from The University of Western Sydney, have updated fracture risk algorithms and created simple tables to guide clinicians. Their findings are now online in the prestigious *Journal of Bone and Mineral Research*.

"More than 50% of women and 60% of men who suffer a fracture do not have osteoporosis," said Professor Nguyen, who led the study.

"Fracture prevention treatment usually relies on the diagnosis of osteoporosis by [bone density](#) measurement. This does not help the people who are not osteoporotic but are at risk of fracture based on a combination of other risk factors, including age, history of personal fracture, and history of falls."

"There are varying opinions around the world on whether or not repeat bone density measurements can help prognosis of fracture. Our research suggests they can."

"Bone density is an important predictor of fracture, and it declines with advancing age. Each year, people lose 0.6 - 1.0% of their bone density."

"If someone has a BMD T score of -2.5 or lower, they have osteoporosis. If someone has a BMD T score of -2.4, they don't have osteoporosis now, but they could develop it within a year."

"So if a 70 year old woman showed a BMD T score of -2.4, it's logical that you would not re-schedule her for testing in 2 years."

"We think that it's vital to reschedule bone density measurements based on age and initial BMD."

The data for the work come from the world-renowned Dubbo Osteoporosis Epidemiology Study, where the bone health of a group of non-osteoporotic men and women was tracked for 18 years to see how many of them developed osteoporosis or sustained [fractures](#).

Professor Nguyen and team developed a web-based fracture risk calculator last year, also based on Dubbo data.

"Our current model of prognoses, which predicts the risk of osteoporosis or fracture based on an individual's age and initial BMD, will eventually be incorporated into the online calculator and this additional element will make it even more powerful," said Nguyen.

Source: Research Australia ([news](#) : [web](#))

Citation: When to get your bone density measured -- that is the question (2009, May 12)
retrieved 28 April 2024 from <https://medicalxpress.com/news/2009-05-bone-density-.html>

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