

Osteoporosis: the silent, largely preventable disease that affects 1m-plus Australians



More than one million Australians have osteoporosis, an insidious disease that weakens the skeleton and leaves the sufferer prone to fractures. In the elderly, osteoporotic fractures can even lead to early death.

Aside from those diagnosed with osteoporosis, another million of us have poor bone health – osteopenia – mainly due to deficiency of vitamin D, the ‘sunshine vitamin’. Vitamin D is the crucial partner in the proper absorption of calcium in the body, necessary to create and maintain strong bones.

Brenda Davy, Strategy Manager, Complementary Medicines, for the Australian Self Medication Industry (ASMI), said vitamin D, calcium and magnesium all have significant roles in the normal development and maintenance of the skeleton.

“Calcium is the key building block for bone structure,” she said. “However, the absorption and metabolism of calcium is dependent on sufficient vitamin D being present, either through the diet or produced in the body from sun exposure. When dietary intake or sun exposure is inadequate, supplementation is an option to fill the gap.

“Both men and women typically peak in bone mass around their third decade, and while lifestyle factors, medications and underlying conditions have an impact on this, bone mass will begin to decrease as levels of oestrogen and testosterone decrease.

“Men generally have a lower tendency of developing osteoporosis than women, but by the age of 65 to 70 years, men lose



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bone density at the same rate as women, and that means – while women are typically considered to be at higher risk of developing osteoporosis compared to men – this is a disease affecting an increasing number of men as life expectancy increases.”

As Australia’s population ages, the incidence of osteoporosis will increase, warns Gail Morgan, CEO of Osteoporosis Australia.

“Without serious intervention, it is estimated that by 2022, the incidence will increase by 31 per cent,” she said. “In 2012, the total cost of poor bone health in Australia in people over 50 years of age was \$2.75 billion. In 2022, the total costs are predicted to be \$3.84 billion. So, over the next 10 years, poor bone health could cost Australians around \$33 billion.”

Last year, economic research firm Frost & Sullivan estimated the potential healthcare costs, savings and productivity gains if all women over 50 years of age with osteoporosis were to take calcium and vitamin D at a preventive dose to reduce the risk of osteoporosis-attributed bone fractures¹.

Osteoporosis and osteopenia resulted in an estimated 140,822 fractures in 2012 at a cost of some \$3 billion. Frost & Sullivan found the relative risk of an individual in the target population experiencing an osteoporosis-attributed fracture was reduced by 19.7 per cent, given the use of calcium and vitamin D at preventive intake levels. This translates to a potential

36,783 avoidable osteoporosis-attributed fractures in 2015, given 100 per cent utilisation of calcium and vitamin D by the high-risk population.

The report estimated that between 2015 and 2020, average annual hospitalisation costs of \$922 million potentially could be saved and average annual productivity gains of \$900 million realised for the same period if all women aged over 50 who were diagnosed with osteoporosis or osteopenia take a preventive dose of calcium and vitamin D.

More than a half of the potential total benefits would go to the individual and more than 42 per cent of potential total benefits could be realised by federal and state governments. The average annual benefit/cost ratio between 2015 and 2020 is \$22.34 for every dollar spent on this complementary medicine regimen.

Interestingly, a recent attitudinal survey of 1,000 Australian men, conducted by Osteoporosis Australia, showed that around 60 per cent of men surveyed did not think they were at risk.

“A public awareness and education campaign is needed to turn this around,” Ms Morgan said. “Pharmacists have an important role to play in talking with customers about their health and providing advice about bone health.”

In 2012, Osteoporosis Australia partnered with the Pharmacy Guild of Australia to develop a bone-health awareness campaign. The program is promoted on the Osteoporosis Australia website and hosted on the Pharmacy Guild education site (www.osteoporosis.org.au/pharmacists).

“The more action people take when they’re young to build bone density the better,” Ms Morgan said. “Action is simple: calcium plus vitamin D plus exercise. Osteoporosis Australia’s Healthy Bones Australia is aimed at spreading this message. Information about preventative actions everyone can take is available at www.healthybonesaustralia.org.au.

“The website has a handy and easy-to-use calculator that can be used to track ‘calcium + vitamin D + exercise’ every day to see whether you’re getting enough of each for healthy bones.” ^{RP}

References

1. Shanahan, C. and Lorimier, R. ‘Targeted use of complementary medicines: potential health outcomes and cost savings in Australia’. Frost Sullivan, October 2014.

