

# Good bone health is key to a long and healthy life

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Bone health is not something we all think about regularly but when we consider the impact that low bone density or 'osteopaenia' can have on our lives in terms of fracture, quality of life and even lifespan ... maybe we should.

'Osteoporosis' literally means 'porous bones' – and is something that occurs when bones become more brittle, less dense and lose minerals such as calcium.

It can lead to an increased risk of fracture and particularly to what is referred to as 'minimal trauma fracture' – or fractures that occur from comparatively small insults like falling from standing.

One of the myriad jobs I have had on my journey to being a doctor up North was working in orthopaedics as a junior doctor and hip fractures after low velocity mechanisms like falls were pretty awful to see. Not only were they so apparently painful and debilitating at the time but it was clear that the patient experiencing the fracture was never going to be quite the same again. And according to the Australian Institute of Health and Welfare, osteoporosis was recorded as an underlying or associated cause for 10 deaths per 100 000 in Australia in 2022. Not something to be disregarded.

The good news is that it is not all doom and gloom – doctors not only know what the main risk factors for osteoporosis are, we also have some great treatments that are helping to decrease incidence of fracture and progression of the disease. In terms of worsening bone health, some of the risk factors are familiar players that I have discussed in previous chats such as smoking and excess alcohol consumption but there are also some that you might not think about like being significantly underweight, malabsorption and inflammatory gut conditions that can decrease vitamin D and calcium absorption as well as lack of weight bearing exercise. And after chatting to local endocrinologist, Dr Parul Nigam I was reminded of a few more risk factors for poor bone density including a strong family history of osteoporosis and, more importantly

for this region, exposures to certain pesticides for farmers. Dr Nigam also notes that late menarche or first period and menopause (both leaving you without bone protecting oestrogen) puts you at increased risk of bone density loss.

This means that while there are some genetic factors such as a significant family history of osteoporosis that you can't change, there are many more lifestyle changes you can make to decrease your risk.

In addition to this, there are nutritional factors.

We know that if you have adequate vitamin D and calcium in your system you have less risk of osteoporosis. This means 1000mg of calcium and 600 international units of vitamin D per day. Calcium is found in all dairy based foods as well as green leafy vegetables, soybeans and some nuts. Vitamin D can be synthesised by your skin but in a high skin cancer risk environment like North Queensland if you are tested by your doctor and found to be low in vitamin D you are best off taking an oral supplement rather than exposing your skin to more sun.

If you are worried that you might have some of these risks there are some great online tools which you can google such as the FRAX (or Fracture Risk Assessment Tool) to calculate your risk of osteoporosis and bone fracture (not to brag, but I just did mine and it is a healthy 0.1% 10 year probability of fracture.) You can also chat to your doctor about obtaining bone densitometry scanning. If your doctor agrees that you satisfy certain risk factors, they can refer you for a Bone Density Scan which can be performed every two years with Medicare funding to further assess your risk of fracture due to low bone density.

If you are found to be osteoporotic there are a number of medications you can be prescribed by your doctor that can increase your bone density and decrease your risk of fracture.

There is so much to remember about health and staying healthy, and bone health might be just one more thing to think about – but at the end of the day, there are a lot of commonalities – ditch the cigarettes and vapes, drink responsibly and regularly move your body with exercise – that will improve a range of health issues as well as bone density. And remember, when in doubt please discuss any health concerns with your trusted health professional.