

About poor bone health, osteoporosis & osteopenia

ABOUT OSTEOPOROSIS

- Osteoporosis is a disease that leads to reduced bone strength and increased risk of fracture.¹
- Once osteoporosis is diagnosed (with or without a fracture) action must be taken to protect bone health, and the level of bone density is monitored to gauge improvement.²
- Particular risk factors place people at higher risk of developing osteoporosis.²
- Patients may not find out they have osteoporosis until after a first fracture.¹
- Any bone can be affected by osteoporosis, however, fractures most often occur in the hip, spine, arm, wrist, ribs, legs, and pelvis.³
- Fractures are expensive for the healthcare system, and disruptive to the lives of patients and their families.³
- Data shows nearly one-in-four (23 per cent) of people aged 50+ living with poor bone health, have osteoporosis.³



ABOUT OSTEOPENIA (LOW BONE DENSITY)

- Osteopenia is low bone mineral density defined by a Bone Density Test result between normal and osteoporosis.⁴
- Fractures in people with low bone density (osteopenia) are common.⁵ Once a fracture occurs and low bone density is present, action must be taken to protect bone health, including the monitoring of bone density.⁶
- Of those aged 50+ years living with poor bone health, 77 per cent have osteopenia.³
- Not every person diagnosed with osteopenia will develop osteoporosis.⁴

RISK FACTORS FOR POOR BONE HEALTH

- Minimal trauma fracture in adults aged over 50 years (from tripping or falling).⁷
- Family history of osteoporosis (or a broken hip).^{2, 7}
- Medical risk factors – coeliac disease, early menopause, low testosterone, rheumatoid arthritis, corticosteroid treatment (for longer than four months), overactive thyroid or parathyroid conditions, some treatment for breast or prostate cancer, chronic kidney or chronic liver disease, and some epilepsy treatment.^{2, 7} Age is also taken into account.
- Lifestyle risk factors – poor calcium intake, vitamin D deficiency, smoking, excessive alcohol intake, and physical inactivity.²

BONE DENSITY TEST

- A bone density test is a simple scan that measures the density of the bones, usually at the hip and spine, and requires a GP referral.⁸
- A bone density scan will determine if bones are in the range of osteopenia, or osteoporosis.⁸
- A scan takes 10-15 minutes, during which the patient remains fully clothed as the arm of the machine passes over the body.⁸
- People over 50 years of age with risk factors for osteoporosis need a bone density scan.⁷



ABOUT FRACTURES

- In 2025 there will be an estimated , 196,000 osteoporosis and osteopenia-related fractures.³
- Fractures can require an ambulance, emergency services, surgery, hospital stays, rehabilitation and home care.³
- People who sustain a fracture from poor bone health are two-to-four times more likely to sustain a further fracture.^{3, 9}
- Fractures due to poor bone health can severely disrupt normal life. Patients are commonly unable to work, drive, shop, complete household tasks, and have reduced mobility.¹
- Spinal fractures can lead to loss of height, changes in posture, and deformity of the spine.¹
- Only 20 per cent of women, and an even smaller percentage of men who sustain a minimal trauma fracture, are investigated for poor bone health. The healthcare system is treating the fracture and missing the underlying cause.¹⁰
- Two-thirds of spinal fractures (vertebral fractures) are not diagnosed or treated, even though nearly all cause pain and some disability.¹¹
- The burden of osteoporosis not only affects those living with the disease, but also their families, and the community at large.¹



KEY STATISTICS

- 6.2 million (67 per cent) Australians aged 50 years and older had poor bone health (2023) noting the disease is increasing in prevalence.³
- Osteoporosis-related fractures are costly to the Australian healthcare system, accounting for up to 67 per cent of the overall cost of the disease, totaling AUD 5.6 billion per year.³
- Hip fracture remains the most costly type of fracture. However, fractures at other sites are more common (spine, wrist, arm and leg).³
- Nearly half of those who have experienced a hip fracture have sustained a previous fracture.¹²
- Estimates suggest a bone will be broken every 2.7 minutes due to poor bone health.³
- People who have sustained a spinal fracture are four-times more likely to experience another fracture within 12 months, compared with those who have never sustained an osteoporotic fracture.^{9, 13}
- Only 20 per cent of women, and an even smaller percentage of men who come to medical attention with a fracture, are then investigated and treated to prevent further fractures.¹⁰
- Targeted identification and management of patients' post-fracture may reduce the risk of refracture by 80 per cent.¹⁴

MORBIDITY & MORTALITY

- Fractures are associated with increased risk of death – in 2023, 5,108 Australians died resulting from fractures attributed to osteoporosis or osteopenia (mainly among those aged 70+ years).³
- Hip fractures are most severe in terms of ongoing pain, disability and mortality.¹
- After sustaining a hip fracture, 11 per cent of patients in Australia are discharged to residential care, 10 per cent of whom tragically die from the fracture.⁷

IMPACT ON QUALITY OF LIFE

- The effects on quality of life include loss of independence, chronic pain, disability, emotional distress, lost productivity, reduced social interaction, and self-limitation caused by a fear of falling.¹

PREVENTION

- Lifestyle changes can support bone health and reduce the risk of developing osteoporosis include no smoking, limited alcohol consumption, adequate calcium intake and sufficient vitamin D.²
- In addition, regular weight bearing and resistance training helps to strengthen bones and muscles, combined with challenging balance training to prevent falls.^{14, 15}

TREATMENT

- Timely diagnosis and effective treatment of osteoporosis prevents further fractures by up to 30, 50, and 70 per cent respectively, in patients with non-vertebral, hip, and vertebral fractures.⁷
- Early diagnosis and treatment can help prevent fractures and slow the progression of osteoporosis.¹¹
- Osteoporosis is generally managed with medication and other changes that help support treatment e.g. weight-bearing exercise, adequate dietary calcium intake, adequate vitamin D (sunshine), or supplements as required.¹¹

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For more information about poor bone health, osteopenia, or osteoporosis, head to: healthybonesaustralia.org.au or follow us on [Facebook](#), [Twitter](#) and [LinkedIn](#).

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