

Quick Facts about Osteoporosis in Residential Aged Care Facilities (RACFs)

Prevalence in RACFs	80-85% have osteoporosis ^{1,2}
Who is at risk in RACFs?	All residents
Leading cause of fractures	Osteoporosis (+ falls)= Fragility Fracture ³ •10% will re-fracture within 1-year ⁴
Reason for admission to RACFs	24% of individuals who fracture are admitted to RACF's ⁴
Most common osteoporotic fracture	Vertebral (Spinal) Fracture ³ 20% occur in men ⁶
Most debilitating and serious osteoporotic fracture	Hip Fracture Costs In Australia: \$39,192
Falls in RAC	38-50% of residents fall annually ^{8,9} Of those who fall: 27-44% have fallen previously ^{8,9}
Injuries from falls	24%-30% sustain a fall related injury ^{8,9}
Fractures from falls	2-7% sustain a fracture ^{8,9} 1% of all falls result in hip fractures ^{8,9}
Hip fracture rates	2-11 times greater in RACFs than in community ^{10,11,12}
Hip fracture incidence	Annual incidence in RACFs is 4% (range 2.3%–6%) ¹³

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Hip fracture prevalence	<p>Hip fracture prevalence</p> <ul style="list-style-type: none"> • 20% ¹ • At 80 years, every 5th woman, at 90 years almost every second woman ² • 30% of all hip fractures occur in men ³
Death rate from hip fractures	<p>39% within 12 months ⁴</p> <ul style="list-style-type: none"> • Greater for men than women ⁴
Most frequent reason for hospitalization	<p>Hip fracture ⁵</p> <ul style="list-style-type: none"> • followed by pneumonia, cardiovascular
Treatment for osteoporosis on discharge after hip fracture	<p>4.5% of men received treatment for osteoporosis on discharge from the hospital compared with 27% of women</p>
Who is at greatest risk to sustain a fracture?	<p>Transfer independence ⁷</p> <p>Prior fracture : 30-60% increase in hip fractures ^{7,8,9}</p> <p>Cognitive impairment ^{7,8}</p>
What are the other risk factors?	<p>Age >65 ⁷</p> <p>3 or more co-morbid conditions ^{8,9}</p> <p>Residents with low BMD values ⁷</p> <p>Medications associated with falls ^{7,8,9}</p> <p>History of falls ⁷</p> <p>Low weight (poor nutrition) ^{7,8}</p> <p>Vitamin D deficiency ⁹</p>

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Bone Health Protection Strategies

Best Practices

What bone health protection **best practices** are effective in Residential Aged Care?

- ☐ Vitamin D 800-2000 IU supplements daily
- ☐ Calcium 1000 - 1300 mg from diet (or 500 mg daily supplementation if not achieved through diet)
- ☐ Osteoporosis medications: bisphosphonates or denosumab
- ☐ Hip protectors
- ☐ Exercise and multifactorial interventions to prevent falls and fractures

Additional Key Practices:

- Improved assessments; on RACF admissions, hospital admissions, resident reviews, with fractures and falls
- Regular activity and exercise
- Safe transfers