### Osteoporosis risk assessment, diagnosis and management

Recommendations restricted to postmenopausal women and men aged >50 years

<table>
<thead>
<tr>
<th>Practice tips</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diagnosis</strong></td>
</tr>
<tr>
<td><strong>Suspected vertebral fracture</strong></td>
</tr>
<tr>
<td><strong>Assessing absolute fracture risk</strong></td>
</tr>
<tr>
<td><strong>Falls prevention</strong></td>
</tr>
<tr>
<td><strong>Calcium and vitamin D supplementation</strong></td>
</tr>
<tr>
<td><strong>Exercise</strong></td>
</tr>
<tr>
<td><strong>Duration of therapy</strong></td>
</tr>
<tr>
<td><strong>Repeat BMD testing</strong></td>
</tr>
<tr>
<td><strong>Medication-related osteonecrosis of the jaw (MRONJ)</strong></td>
</tr>
</tbody>
</table>

This guide is based on Osteoporosis prevention, diagnosis and management in postmenopausal women and men over 50 years of age, 2nd edition. For the full list of evidence-based recommendations, explanation of grades, practice tips and background information, access the full guideline from Osteoporosis Australia osteoporosis.org.au or The Royal Australian College of General Practitioners racgp.org.au

Information for patients

| Osteoporosis Australia osteoporosis.org.au | Osteoporosis Australia osteoporosis.org.au |
| Know Your Bones knowyourbones.org.au | NPS MedicineWise nps.org.au |
| Healthy Bones Australia healthybonesaustralia.org.au | Therapeutic guidelines tp.org.au |

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**Minimal trauma hip or vertebral fracture**

- DXA of spine and proximal femur (Grade A)

  - T-score ≤–1.5
  - T-score >–1.5

**Minimal trauma fracture at any other site**

- DXA of spine and proximal femur (Grade A)

  - T-score ≤–1.5
  - T-score >–1.5

**No history of minimal trauma fracture**

- Aged ≥70 years‡
  - (Grade D Consensus)

  - Non-modifiable
    - Parental history of fracture
  - Modifiable and lifestyle
    - Premature menopause†
    - Hypogonadism†
    - Multiple falls
    - Low physical activity or immobility
    - Low body weight
    - Low muscle mass and strength
    - Poor balance
    - Protein or calcium undernutrition
    - Smoking
    - Alcohol >2 standard drinks/day
    - Vitamin D insufficiency

- Diseases or conditions§
  - Rheumatoid arthritis†
  - Hyperthyroidism†
  - Hyperparathyroidism†
  - Chronic kidney disease†
  - Chronic liver disease†
  - Coeliac disease or malabsorption†
  - Diabetes mellitus
  - Myeloma or MGUS
  - Organ transplant
  - Bone marrow transplant
  - HIV infection
  - Depression

- Medications (large effect)
  - Glucocorticoids† (>3 months≥7.5 mg/day)
  - Excess thyroid hormone replacement
  - Aromatase inhibitors
  - Anti-androgen therapy†

- Medications (modest effect)
  - SSRIs
  - Anti-psychotics
  - Thiazolidenediones
  - Anti-epileptic medications
  - PPIs

**Assess risk factor profile (Grade B)**

- Major risk factors that qualify for MBS reimbursement of DXA†

**DXA of spine and proximal femur (Grade A)**

- T-score ≤–2.5?
  - Yes
  - No

- High 10-year risk of fracture Hip fracture >3%, any fracture >20%
  - OR T-score ≤–2.5

- Low risk of fracture
  - Treatment not recommended

**Address lifestyle risk factors**

- Implement falls reduction strategies (Grade A)
- Encourage balance training and resistance exercise (Grade A)
- Modify diet, smoking and alcohol intake (Grade C)
- Provide education and psychosocial support (Grade D)

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**BMD** Bone mineral density

**DXA** Dual energy X-ray absorptiometry

**HIV** Human immunodeficiency virus

**MBS** Medicare Benefits Schedule

**MGUS** Monoclonal gammopathy of undetermined significance

**PPIs** Proton pump inhibitors

**SSRIs** Selective serotonin reuptake inhibitor

* Excluding fingers and toes
† Qualifies for MBS reimbursement of BMD testing
‡ Consensus recommendation. The MBS reimburses costs for measurement of BMD testing in any person aged ≥70 years
§ See other guidelines specific to glucocorticoid treatment for more information and recommendations regarding glucocorticoid use and risk of osteoporosis and fracture
§ Treatment of an underlying condition may improve bone strength